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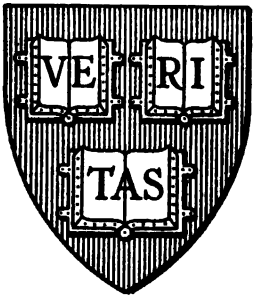

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FIRST REPORT

OF THE

BOARD OF IMMIGRATION

OF THE

STATE OF MISSOURI

TO THE

TWENTY-FOURTH GENERAL ASSEMBLY,

FOR THE YEARS 1865 AND 1866.

SENATE.—Laid on the table, 2,500 copies ordered printed, 1,000 of which to be in the German language, 2,000 to be for the use of the board, and 500 for the use of the Senate. February 4, 1867.

D. P. DYER, *Secretary.*

HOUSE.—Laid on the table, 5,000 copies ordered printed in pamphlet form, 2,000 in English, 1,000 in German, and 1,000 in French, 3,500 for the use of the Board of Immigration and 1,500 for the use of the House. February 19, 1867.

N. T. DOANE, *Chief Clerk.*

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REPORT.

AN ACT TO ENCOURAGE IMMIGRATION TO THE STATE OF MISSOURI.

SECTION
1. Creates a Board of Immigration, to be appointed by the Governor.
2. Governor and Secretary of State to be ex-officio members of the board; duties of the board.
3. The board may publish or cause to be published, what.
4. The board may appoint agents.
5. Meeting of the board, when and where to be held.
6. Governor to be presiding officer; election of officers.
7. Treasurer of the board to give bond.
8. Appropriation out of the State treasury.
9. Board may open books for subscriptions and endowments.
10. Immigration Fund so created to be deposited, where, and expended, how.
11. Vacancies in the board, how to be filled.
12. Board to co-operate with the Bureau of Immigration at Washington, D. C.; reports to be made to Legislature.

WHEREAS, The time has arrived when the subject of immigration should receive the immediate services and unremitted attention of every well meaning citizen of our State, in order to repair as rapidly as possible the losses of population sustained through the desolations of war, by the introduction of a people recommended by their loyalty, their industry and intelligence; *and whereas*, that in order to secure this end every inducement should be offered that class of immigrants, come from what portion of the civilized world they may, and the development of our agricultural and mineral resources should be encouraged, therefore

Be it enacted by the General Assembly of the State of Missouri, as follows:

SECTION 1. There is hereby created a Board of Immigration, which shall be composed of five members, three of which are to be appointed by the Governor.

SEC. 2. The Governor and Secretary of State shall be ex-officio members of this board; and it shall be its duty to do all and everything which may and will enhance and encourage immigration to our State, either from the eastern States of the United States or from the eastern hemisphere.

SEC. 3. The members of this board shall, if they deem it advisable and proper for the encouragement of immigration, publish or cause to be published pamphlets, essays and articles treating on and describing in a true light the developed and undeveloped agricultural and mineral resources of the State of Missouri, our facilities for navigation, railroad connections, and our wide-spread commerce, and to distribute them in such localities wherever, in their opinion, they may be useful, beneficial and of good for the promotion of immigration to our State.

SEC. 4. They also shall have power, whenever deemed expedient

by them, to appoint an agent or agents either for the eastern States of the United States or for Europe, for the purpose of aiding and advising immigration; and such agent or agents shall act solely under the instruction of the Board of Immigration, who shall also fix and allow their compensation for their services, to be paid out of the fund created as hereinafter provided.

SEC. 5. It shall be the duty of the Board of Immigration to meet in the city of St. Louis, on the last Monday in the months of March, June and September, and on the first Monday in December, for consultation, and to transact such business as properly may come before the same; but nothing in this act shall be so construed as to prevent a meeting of the board at any other time, whenever a majority thereof shall deem it advisable for the dispatch of business and the interest of immigration; such calls, however, shall always be made by the president of the board, and countersigned by the secretary thereof.

SEC. 6. The Governor of the State shall be presiding officer of the board, and in their first meeting on the last Monday in March, A. D. 1865, the board shall elect, by ballot, a corresponding and recording secretary, a vice president and a treasurer, out of their own number.

SEC. 7. The treasurer of the board shall give bond in the sum of ten thousand dollars, which bond shall be approved by the president and secretary thereof, and deposited with the Secretary of State.

SEC. 8. Four thousand dollars are hereby appropriated out of any money in the treasury not otherwise appropriated, for the use of the Board of Immigration, and to be expended by them as they think best and expedient for the interest of immigration to the State of Missouri.

SEC. 9. The Board of Immigration is furthermore authorized and shall have power to open books and invite and solicit contributions and endowments of money from corporations, manufacturers, merchants and all persons who are immediately and directly benefited by the flow of immigration; which money so contributed shall also be under the control of and expended by the board for the intents and purposes in the preceding section stated.

SEC. 10. The fund so created shall be called "Immigration Fund," and all money accruing under the preceding section shall be deposited in a bank to be designated by the board, subject to the order of the same. The drafts to be signed by the president and countersigned by the treasurer.

SEC. 11. In case of a vacancy in the board occurring by death, removal, resignation or otherwise, such vacancy shall be filled by the Governor, by and with the advice and consent of the board.

SEC. 12. It shall be the duty of said board to co-operate with the Bureau of Immigration at Washington City, and to make regular reports of their labors and proceedings to the General Assembly of the State, accompanied by such references, suggestions and statistics as may furnish good and reliable data and a proper basis for future legislation on the subject of immigration.

This act to take effect and be in force from and after its passage.

Approved February 16, 1865.

TITLE XXIII. CHAPTER 68.

AN ACT CONCERNING THE BOARD OF IMMIGRATION.

Be it enacted by the General Assembly of the State of Missouri, as follows:

SECTION 1. There shall be a Board of Immigration, which shall be composed of five members, three of which are to be appointed by the Governor.

SEC. 2. The Governor and Secretary of State shall be ex-officio members of this board; and it shall be its duty to do all and everything which may and will advance and encourage immigration to this State, either from the eastern States of the United States or from the eastern hemisphere.

SEC. 3. The members of this board shall, if they deem it advisable and proper for the encouragement of immigration, publish or cause to be published pamphlets, essays and articles treating on and describing, in a true light, the developed and undeveloped agricultural and mineral resources of the State of Missouri, our facilities for navigation, railroad connections, and our wide-spread commerce, and to distribute them in such localities wherever, in their opinion, they may be useful, beneficial and of good for the promotion of immigration to our State.

SEC. 4. They also shall have power, whenever deemed expedient by them, to appoint an agent or agents, either for the eastern States of the United States or for Europe, for the purpose of aiding and advising immigration; and such agent or agents shall act solely under the instruction of the Board of Immigration, who shall also fix and allow their compensation for their services, to be paid out of the fund created as hereinafter provided.

SEC. 5. It shall be the duty of the Board of Immigration to meet in the city of St. Louis on the last Monday in the months of March, June and September, and on the first Monday in December, for consultation, and to transact such business as properly may come before the same; but nothing in this chapter shall be so construed as to prevent a meeting of the board at any other time, or the regular meeting of the board at any other place, whenever a majority thereof shall deem it advisable for the dispatch of business and the interest of immigration; such calls, however, shall always be made by the president of the board and countersigned by the secretary thereof.

SEC. 6. The Governor of the State shall be the presiding officer of the board, and the officers now appointed and serving shall hold their offices until the last Monday in March, 1867, at which time the board shall elect, by ballot, out of their own number, a recording secretary and a corresponding secretary, a vice president and a treasurer, who shall hold their offices for two years and until their successors are duly elected and qualified.

SEC. 7. The treasurer of the board shall give bond in the sum of ten thousand dollars, which bond shall be approved by the president and secretary thereof, and deposited with the Secretary of State.

SEC. 8. The sum of two thousand dollars, annually, is hereby appropriated out of any money in the Treasury of the State not otherwise appropriated, for the use of the Board of Immigration, to be expended by them as they think best and expedient for the interest of immigration to the State of Missouri, which shall be in full of all other appropriations.

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SEC. 8. Four thousand dollars are hereby appropriated out of any money in the treasury not otherwise appropriated, for the use of the Board of Immigration, and to be expended by them as they think best and expedient for the interest of immigration to the State of Missouri.

SEC. 9. The Board of Immigration is furthermore authorized and shall have power to open books and invite and solicit contributions and endowments of money from corporations, manufacturers, merchants and all persons who are immediately and directly benefited by the flow of immigration; which money so contributed shall also be under the control of and expended by the board for the intents and purposes in the preceding section stated.

SEC. 10. The fund so created shall be called "Immigration Fund," and all money accruing under the preceding section shall be deposited in a bank to be designated by the board, subject to the order of the same. The drafts to be signed by the president and countersigned by the treasurer.

SEC. 11. In case of a vacancy in the board occurring by death, removal, resignation or otherwise, such vacancy shall be filled by the Governor, by and with the advice and consent of the board.

SEC. 12. It shall be the duty of said board to co-operate with the Bureau of Immigration at Washington City, and to make regular reports of their labors and proceedings to the General Assembly of the State, accompanied by such references, suggestions and statistics as may furnish good and reliable data and a proper basis for future legislation on the subject of immigration.

This act to take effect and be in force from and after its passage.

Approved February 16, 1865.

TITLE XXIII. CHAPTER 68.

AN ACT CONCERNING THE BOARD OF IMMIGRATION.

Be it enacted by the General Assembly of the State of Missouri, as follows:

SECTION 1. There shall be a Board of Immigration, which shall be composed of five members, three of which are to be appointed by the Governor.

SEC. 2. The Governor and Secretary of State shall be ex-officio members of this board; and it shall be its duty to do all and everything which may and will advance and encourage immigration to this State, either from the eastern States of the United States or from the eastern hemisphere.

SEC. 3. The members of this board shall, if they deem it advisable and proper for the encouragement of immigration, publish or cause to be published pamphlets, essays and articles treating on and describing, in a true light, the developed and undeveloped agricultural and mineral resources of the State of Missouri, our facilities for navigation, railroad connections, and our wide-spread commerce, and to distribute them in such localities wherever, in their opinion, they may be useful, beneficial and of good for the promotion of immigration to our State.

SEC. 4. They also shall have power, whenever deemed expedient by them, to appoint an agent or agents, either for the eastern States of the United States or for Europe, for the purpose of aiding and advising immigration; and such agent or agents shall act solely under the instruction of the Board of Immigration, who shall also fix and allow their compensation for their services, to be paid out of the fund created as hereinafter provided.

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SEC. 6. The Governor of the State shall be the presiding officer of the board, and the officers now appointed and serving shall hold their offices until the last Monday in March, 1867, at which time the board shall elect, by ballot, out of their own number, a recording secretary and a corresponding secretary, a vice president and a treasurer, who shall hold their offices for two years and until their successors are duly elected and qualified.

SEC. 7. The treasurer of the board shall give bond in the sum of ten thousand dollars, which bond shall be approved by the president and secretary thereof, and deposited with the Secretary of State.

SEC. 8. The sum of two thousand dollars, annually, is hereby appropriated out of any money in the Treasury of the State not otherwise appropriated, for the use of the Board of Immigration, to be expended by them as they think best and expedient for the interest of immigration to the State of Missouri, which shall be in full of all other appropriations.

SEC. 9. The Board of Immigration is furthermore authorized and shall have power to open books and invite and solicit contributions and endowments of money from corporations, manufacturers, merchants and all persons who are immediately and directly benefited by the flow of immigration; which money so contributed shall also be under control of and expended by the board for the intents and purposes in the preceding section stated.

SEC. 10. The fund so created shall be called "Immigration Fund," and all money accruing under the preceding section shall be deposited in a bank to be designated by the board, subject to the order of the same. The drafts to be signed by the president and countersigned by the treasurer.

SEC. 11. In case of a vacancy occurring in the board by death, removal, resignation or otherwise, such vacancy shall be filled by the Governor, by and with the advice and consent of the board.

SEC. 12. It shall be the duty of said board to co-operate with the Bureau of Immigration at Washington City, and to make regular reports of their labors and proceedings to the General Assembly of the State, accompanied by references, suggestions and statistics, as may furnish good and reliable data and a proper basis for future legislation on the subject of immigration.

Approved March 6, 1866.

REPORT.

In compliance with the requirements of the foregoing acts, the Board of Immigration submits its first biennial report, rendering an account of its operations, of the receipts and expenditures under the law establishing it, and of the results attained since its establishment.

The duties devolving upon this board are: First, to encourage and promote immigration; and, second, to advise and aid immigrants.

The manner in which we have tried to perform these duties, with the very limited means at our command, the means we have applied for this purpose and the difficulties we had to contend with, will more fully appear from the annexed report of the secretary.

From the abstract statement of the treasurers of this board, it will be perceived that the amount of State aid received during these two years was only $6,000 00

The voluntary contributions obtained from corporations and individuals amounted to 4,493 90

Total receipts $10,496 90

The expenses for the office at St. Louis, including rent, furniture, fuel, postage, stationery, contingent expenses and salary of clerk (now at $900 per annum), amount to $3173 08

For publications and their distribution, for printing and advertising 3354 80

For agents' traveling expenses and for collection fees .. 1934 67

For diplomas of honorary members, engraving, printing, etc 585 00

Total expenses $9047 55

Leaving balance in hands of treasurer $1449 35

There is no indebtedness.

But it will be seen that the amount now provided by law for the great and important work this board has to perform is utterly insufficient, and must necessarily impair the efficiency of its action.

The act creating this board contemplates that it shall publish or cause to be published pamphlets, essays and articles on Missouri. We have aided in the publication of various books and pamphlets on the subject; we have ourselves published Muench's Handbook for German Emigrants, and one circular, "Free Missouri" (in the English language), in ten thousand of copies; also, other pamphlets and numberless articles in the press of this and other countries. But for the material aid of others, the zeal of our German correspondent, Hon. F. Muench, our general agent, Rev. M. W. Willis, of Professor S. Waterhouse, and of our secretary, Mr. Isidor Bush, with all of whom this has been a labor of love—asking of us no pecuniary reward—we would not have been able to do this.

Our means are also too limited to afford to the arriving immigrants that protection and aid which they so much require. We had to restrict ourselves, in this respect, to co-operation, as far as we could, with those charitable institutions which had been established by our citizens in a spirit of philanthrophy deserving the highest praise. By electing the President of the German Emigrant Aid Society as our secretary, our co-operation with that society has been most advantageous for both, and has greatly benefited the foreigners who came to or through Missouri for a new home.

We succeeded in obtaining from the managers of some of our Missouri railroads a reduction of fare for the transportation of immigrants, their families and household goods. Thousands of dollars were thus saved to those coming to settle among us.

In pursuance of the provisions of the law, we have solicited contributions of money for an "immigration fund," and about forty-five hundred dollars ($4500) have been received. Small as this amount is, it has materially aided this board in its efforts, and the donors deserve our best thanks.

We refer also to the correspondence with the United States Bureau of Immigration at Washington, the Commissioner of Immigration at New York, and others, the more interesting portion of which is appended to this report. It is evident that the example of Missouri in encouraging immigration receives the applause of, and is followed by, various of our sister States.

The wisdom of establishing a State Board of Immigration has been fully vindicated by the results. The attention of emigrants has been attracted to Missouri; and she has received, during the year just closed, a larger share of the continually increasing tide of immigration than ever before. In consequence of this, the value of our lands, as well as the amount of our productions, has rapidly increased, and has repaid to our citizens a hundred fold the small outlay made to bring about those results.

The increase of immigration to our State since the organization of this board has been so great, its benign influence on the wealth and productions of Missouri and the development of her resources is so marked, that we cannot but feel a justifiable pride in having been permitted to be the means of promoting, fostering, inviting, aiding and attracting immigration.

Without asking or expecting from you any acknowledgment of our services, we may be pardoned for saying that the result we have attained is such as we can refer to with much gratification.

We do ask, however, in view of these results, and in view of the fact that the importance of immigration to this State is beginning to be sensibly felt, that you appropriate for this purpose an amount in proportion to the magnitude and importance of this noble cause. As immigration increases so rapidly, some further legislation may be necessary to extend and perfect our sphere of usefulness; and we shall be happy to carry out such measures as your wisdom will suggest.

Respectfully,

THOS. C. FLETCHER,
FRANCIS RODMAN,
ISIDOR BUSH,
AMEDE VALLE,
F. MUENCH.

REPORT OF THE SECRETARY

OF THE

BOARD OF IMMIGRATION OF MISSOURI.

IMMIGRATION: ITS IMPORTANCE NOT FULLY RECOGNIZED.

Immigration into our State is destined to exercise so vast an influence on the development of our resources, on the welfare of our commonwealth, economically as well as socially considered, that its importance can hardly be over-estimated.

Even the peopling of the States and territories west of our own State is of so much moment to ourselves—the advantages which our commerce and manufactures, our railroads and navigation must derive from a speedy spread of civilization in that direction, are so great—that, disregarding even the behests of our national polity, the sole material interest of our State demand a careful consideration of this subject under all its aspects.

That our weal and woe as a people is to a great extent dependent on the continuance and increase of a steady and copious flow of immigration into our borders, is a trueism not yet understood by the majority of our people; and but few of our legislators seem to be aware that well directed efforts in the proper quarters, that guidance and protection to the new comers, that a zealous care for the fair fame of our State abroad, will in a brief space repay time and money a hundred and a thousand fold. Not until lately, therefore—scarcely two years ago—some favorable legislation could be obtained, and then only by force of circumstances, "in order to repair as rapidly as possible the losses of population sustained through the desolations of war." And not merely legislative bodies, but corporations and municipalities, citizens in general, with few very recommendable exceptions, oppose a stolid indifference to our endeavors to raise the public spirit to a level with the importance of our aims. Although Knownothingism, happily for the future of the country, had its day, yet we still seem to forget that we are, nearly all of us, immigrants into the State ourselves, and if we dare not, indeed, deny the importance of immigration itself, we are yet inclined to underrate the value and effectiveness of an organized system of encouragement and promotion of immigration. Facts are there, however, to disprove this, in my opinion, shortsighted view. States and countries that have, in a Catholic spirit, and with wise forethought, fostered and favored the cultivation of their sparsely populated domains by a thrifty and industrious class of settlers, have invariably reaped a rich harvest of prosperity in reward of their liberality; while others which, either from a want of

adaptation of proper means to the desired end, or in a spirit of narrow-minded sefishness, have failed to attract or have shut out from their borders that ever-flowing migratory tide, have as regularly receded in prosperity, and even retrograded in civilization.

The following table will show the movement of population in ten States, five fostering immigration and five neglecting or repulsing immigration in the last decade:

(*A*) STATES FAVORING IMMIGRATION.

STATES.	POPULATION.		
	1850.	1860.	Actu'l increase
Illinois	851,470	1,711,753	860,283
Iowa	192,214	674,948	482,734
Wisconsin	305,391	775.873	470,482
Michigan	397,654	749,112	351,458
Minnesota	5,330	172,022	166,692
Total	1,752,059	4,083,708	2,331,649 or 133 per cent.

(*B*) STATES DISFAVORING IMMIGRATION.

STATES.	POPULATION.		
	1850.	1860.	Increase.
Missouri	682,044	1,182,012	499,968
Indiana	988,416	1,350,428	362,012
Kentucky	982,405	1,155,684	173,279
Maine	583,034	628,279	45,245
Vermont	314,120	315,098	978
Total	3,550,019	4,631,501	1,081,482 or 30 per cent

This little tabular comparison speaks volumes to the reflecting mind. To him who understands that population is wealth and power, it illustrates more strikingly the influence of proper efforts in promoting immigration; and this influence will yet be felt in favor of the first named States for years to come; for I need not mention the fact that every new comer is generally very soon enabled and willing to send for his relations and friends left behind—that he thus, through others, becomes a new source of increased prosperity and wealth to the community. The statistical tables appended to this report, imperfect as they are, will still further illustrate how those States that have succeeded in arresting and appropriating a large share of this overflowing source of wealth, have accordingly grown in prosperity and importance, while those States that failed to appreciate the benefits that would accrue to her from this cause, have become unable to compete with her sister States in the race for progress and in the growth of prosperity. I might point to nearly all of the former slave States, who will find themselves debarred from participating in the blessings of material advancement and social progress, as long as they do not entirely discard that narrow-minded intolerance,

that spirit of caste which is the bitter fruit of servile institutions. They will fail to attract any immigrants to their borders, as long as they do not cheerfully adopt and carry out that broad and liberal policy which is the only safe and immutable basis of social advancement as well as of material prosperity. These facts are sufficiently known, and yet they remain a dead letter to most; but few seem to penetrate to their true meaning, and to understand the doctrine they preach. The amount to be appropriated for the purposes of this board was originally fixed at $4,000 annually. The word "annually" having been omitted by a clerical error, the bill had to be amended, and the amount was reduced to $2,00 ' annually. In this connection I might mention that Wisconsin and Minnesota are spending over $20,000 annually for the promotion of immigration;* our sister State, Kansas, on the other hand, has, during the last session of her Legislature, rejected a bill introduced for the same object. In regard to other sources of income, I regret that I am unable to report a more thorough comprehension of the greatness of our object, of their importance to individual citizens as well as to the State at large, on the part of corporations, municipalities and individuals. With exception of the three county courts of St. Louis, St. Charles and Howard counties, no county or municipality has contributed a single dollar to the useful and noble objects of this board. The city of St. Louis could afford to spend thousands of dollars, and to send out a fleet of steamers for the reception of President Johnson, who visited this State apparently but to revile and insult her Senators and Representatives in Congress; but the great and wealthy city of St. Louis had not a cent to spare for the promotion of immigration, and refuses admission into her hospitals to the poor and sick immigrants, while New York has now built an immigrant hospital, founded and maintained for the sole benefit of the immigrant, at a cost of over half a million of dollars.

In vain the secretary of this board applied by letter (appendix) to all the railroad companies for half fare privileges for immigrants and their household effects. But very few answered at all; none favorably; some referring to their second class and emigrant train arrangements, others to the necessity of a uniform system among the various connecting lines; and when, for the purpose of effecting this uniformity, the subject was introduced at the general ticket agent convention, at Chicago (October 11, 1865), the proposition was laid on the table. The more gratefully must we acknowledge the liberality of the North Missouri, the Iron Mountain and the Southwest Pacific roads, who passed all immigrants and their effects at half fare on the certificate of this board, or other sufficient evidence of their bona fide intention to settle in this State. The great Missouri Pacific Railroad Company, on the other hand, which has received more than seven million of dollars State aid, for which the citizens have paid millions in taxes, a road which now boasts of its millions of receipts, does not remember that it owes its rapidly increasing prosperity to this very flow of immigration to which it refuses facilities which would constitute but an insignificant sacrifice to the company, but contribute greatly to the cause of immigration in general, as well as afford much assistance in individual cases.†

*Wisconsin, with a native born population of 278,362 in 1860, contained 123,879 German immigrants and 49,961 of Irish immigrants, while Missouri, with 564,289 of native born population, numbered only 88,487 Germans and 43,464 Irish immigrants.

†Mr. George R. Taylor, President of the Pacific Railroad, had the kindness to make exceptions whenever I addressed myself to him, and granted half fare, at my personal or written request, in many instances, but it is impossible for the secretary to do this in all cases. Often it was also impossible to reach the President himself. The half fare to bona fide immigrants should be the rule, and not an exception granted to one and withheld from the other, without cause.

Private contributions to this fund exhibit, I am sorry to say, the same want of liberality and comprehension of the remunerative character of the effects which must follow a greater efficiency of this board, and result from a sphere of activity enlarged through enhanced means of action. The contiguity of our pecuniary means is necessarily a great restriction to the full realization of the object for which this board has been created. As far as these private contributions are concerned, I must state, however, that our failure is partly to be attributed to a want of harmony between the board and its former treasurer (Mr. Thomas E. Souper), and to the inefficiency of its former soliciting agent (Mr. Bittman). The list of honorary members (see appendix) of those who pay an annual contribution to the immigration fund, exhibits the noteworthy fact that, with very few honorable exceptions, these donations proceed mostly from our naturalized fellow citizens, who, therefore, seem to appreciate the value of an increased immigration, and its promotion through this board.

I will add that this apparent indifference of State authorities and individuals may, probably, find an excuse in the fact that we were used heretofore to leave immigration into our State entirely to its own impulse. Even our national government passed the first act "to encourage immigration" in 1864 (approved July 4, 1864), and established a board of immigration only after the want of labor during the closing years of the war called public attention to the subject.

In the report of the Commissioner of Immigration, H. N. Cougar, to the Speaker of the House of Representatives (February 28, 1866, ex. doc. No. 66), we encounter the following words: "The general government has failed to recognize the importance of this subject or the necessity of its action."

Some far-seeing American patriots and leading politicians have, indeed, repeatedly insisted on the incalculable benefits of immigration; have depicted it in its true light as the conditio sine qua non of the development, progress, wealth and power of this our common country; but in general, we meet a deplorable indifference and misconception of the scope of the all-embracing and vital importance of this subject. It seems proper, therefore, nay, almost necessary, to show again and again, by data, proofs and calculations, the

EFFECTS OF IMMIGRATION.

If we consider that the first beginnings of European emigration to this continent date scarcely three centuries back, and that this current has never since ceased flowing, but kept on, with few short interruptions only, increasing in volume down to the present day, it may well be said that this nation of ours, that these United States, with their millions of inhabitants, owe their existence to, and are the effect of immigration; and our history presents to the careful observer the clearest evidence "that the periods in which immigration had grown had been those of growing wealth, prosperity, and power, while those in which it had declined had been those of growing poverty and weakness."* It is not necessary, however, to refer back to the history of the past; for the sake of argument, it will be sufficient to limit our investigation to the present century.

We find that the population of the United States in 1800 numbered a little over five millions, and in 1860 thirty-one millions and a half. A careful collector of facts (Sir Morton Peto), who lately visited

* Henry C. Carey, of Philadelphia.

this country, says: "There is nothing in the old world to equal this rate of progress. Since 1830, the population of the United States has increased nineteen millions, while that of Great Britain increased less than six millions. Immigration is the cause to which we must attribute this great increase of population in America; and it is one which takes no effect in Europe. While the increase of the population in Great Britain represents almost exclusively the natural increase of a populous and thriving country, the increase in the population of the United States represents an entirely different element. It has been mathematically demonstrated that if the United States, in the year 1800, had been in the same circumstances as Great Britain—that is, if there had been no immigration, and the increase of her population had arisen from natural causes only*—the free white and colored people of the United States would, at the present time, have only numbered 10,463,000, or one-third of the whole present population in 1863; the immigration of the present century, and their descendants, number more than 21,000,000, or two-thirds of the whole."

This is mostly lost sight of. An American whose father or grandfather was born in Massachusetts, Virginia, or any other of the former colonies or territories, is wont to value his worth by his pedigree as a descendant of the Pilgrim fathers or of the Cavaliers, and believes himself entitled to regard the immigrant of this day as his inferior, who ought to be humbly grateful for the blessings which he will be graciously permitted to enjoy in this country. But the advantages, the increase of wealth, power, social development which accrue to the nation, to every one of its members thereof, from this source, its influence on the expansion of ideas, on the cultivation of science, art, and letters, are seldom taken into account. The progress of ideas and culture eludes research, inasmuch as in cannot be valued in dollars and cents; it would require a treatise by itself to do justice to the ethical, social, and political aspects of this subject, and we must, necessarily, therefore, confine our synopsis to an approximate estimate of the influence of immigration on the wealth of our nation.

I quote from the above named writer: "It has been calculated, though on very imperfect data, that each immigrant who lands in America brings with him an average of $68. But these returns were obtained from among the poorest classes of immigrants. Among cabin passengers the average amount would evidently be much higher; and from returns made to the governments of Prussia and Bavaria, for seven years, by emigrants who left those countries with official permission, it appears that they carried each to America an average amount of $180 00. The United States officials calculate that the immigrants have brought into the United States not less than 400,000,000 cash dollars, besides the much superior values represented by their physical, intellectual and moral powers." And further: "It is of great advantage to the United States that by far the greater proportion of the immigrants are at the age at which they are best fitted for labor. The records show that upward of fifty per cent. of the whole were between fifteen and thirty years of age. Only ten per cent were above forty and only eight per cent. under five."

A better estimate, however—although considerably too low, we think—of the value of the labor of the immigrants is that of the Hon. Robert J. Walker, former Secretary of the Treasury, who, commenting on the provisions of the Homestead Bill (in November, 1862), says:

* We are aware that Great Britain has lost by emigration during the first half of this century over 4,000,000 of her population, but this is partly balanced by immigration to Great Britain from other States, and it should be remembered that in Europe the increase of population is by far the most rapid in England; the Continental nations, France especially, increase in a much slower ratio.

"Now, besides the money brought here by the immigrants, the census proves that the average annual value of the labor of Massachusetts, per capita, was, in 1860, $220 for each man, woman and child, independent of the gains of commerce—very large, but not given. Assuming that of the immigrants at an average annual value of only $100 each, or less than thirty-three cents a day, it would make, in ten years, at the rate of 100,000 each year, the following aggregate:

1st year	100,000	=	$10,000,000
2nd "	200,000	=	20,000,000
3rd "	300,000	=	30,000,000
4th "	400,000	=	40,000,000
5th "	500,000	=	50,000,000
6th "	600,000	=	60,000,000
7th "	700,000	=	70,000,000
8th "	800,000	=	80,000,000
9th "	900,000	=	90,0 0,000
10th "	1,000,000	=	100,000,000
Total			$550,000,000

"In this table the labor of all immigrants each year is properly added to those arriving the succeeding year, so as to make the aggregate the last year 1,000,000. This would make the value of the labor of this million of immigrants in ten years, $550,000,000, independent of the annual accumulation of capital, and the labor of the children of the immigrants (born here) after the first ten years, which, with their descendants, would go on constantly increasing.

"But by the official returns (p. 14, Census), the number of alien immigrants to the United States, from Debember, 1850, to December, 1860, was 2,598,216, or an annual average of 260,000.

"The effect, then, of this immigration, on the basis of the last table, upon the increase of national wealth, was as follows:

1st year	260,000	=	$26,000,000
2nd "	520,000	=	52,000,000
3rd "	780,000	=	78,00 ,000
4th "	1,040,000	=	104,000,000
5th "	1,300,000	=	130,000,000
6th "	1,560,000	=	156,000,000
7th "	1,820,000	=	182,000,000
8th "	2,080,000	=	208,000,000
9th "	2,340,000	=	234,000,000
10th "	2,600,000	=	260,000,000
Total			$1,430,000,000

"Thus the value of the labor of the immigrants, from 1850 to 1860, was $1,430,000,000, making no allowance for the accumulation of capital, by annual reinvestment, nor for the natural increase of this population, amounting, by the census, in ten years, to about twenty-four per cent. This addition to our wealth by the labor of the children, in the first ten years, would be small; but in the second and each succeeding decade, when we count children and their descendants, it would be large and constantly augmenting. But the census shows that our wealth increases each ten years at the rate of 126.45 per cent. (Census table 35.) Now, then, take our increase of wealth,

in consequence of immigration, as before stated, and compound it at the rate of 126.45 per cent. every ten years, and the result is largely over $3,000,000,000 in 1870, and over $7,000,000,000 in 1880, independent of the effect of any immigration succeeding 1860. If these results are astonishing, we must remember that immigration here is augmented population, and that it is population and labor that create wealth. Capital, indeed, is but the accumulation of labor. Immigration, then, from 1850 to 1860, added to our national products a sum more than double our whole debt on the 1st of July last, and augmenting in a ratio much more rapid than its increase, and thus enabling us to bear the war expenses."

If we apply this to our own State, which is now about to receive a large immigration, not merely from Europe, but to an equal, if not to a greater extent, from the older States of the Union—assuming the number of immigrants from both sources at only 26,000 per annum, which is below the actual number, and far below our expectations for the next decade, at the very low estimate of $100 for the average annual value of the labor of each person, we find that immigration will increase the wealth or the State in ten years by one hundred and forty-three millions of dollars.

Of the large numbers of European immigrants who have come to the United States, but an insignificant per centage have settled in the Southern States. While Wisconsin contains a foreign population of nearly 36 per cent., Minnesota, 34 per cent., New York, 26 per cent., Tennessee numbers not quite 2 per cent., South Carolina, 1½ per cent., Georgia, a little over 1 per cent., North Carolina, only ½ per cent. of foreigners among her inhabitants. The natural increase of population has, of course, benefited the Southern as well as the Northern States; yet, between 1850 and 1860, South Carolina only increased its entire population from 668,000 to 703,000, or by about 35,000 inhabitants. Missouri was the only slave State of 1850 that largely increased its entire population, between that period and 1860. In 1861 Missouri declared for the Union and deposed its anti-Union Governor, and in 1863 it passed an ordinance for the emancipation of its slaves.

Such are the effects of immigration. The marked disproportion in the increase of population, North and South, respectively, is due to this cause. The preponderance in numbers, in wealth and power, of the Northern over the Southern States, must exclusively be attributed to immigration, considering that the natural advantages of soil and climate are in favor of the South. It may safely be argued, therefore, that the successful termination of the war is due to immigration. The mind refuses to acknowledge the full extent and the whole significance of these effects; yet, to those who candidly and conscientiously investigate the matter, to the unbiased mind of the future historian, it will appear beyond doubt that for the maintenance of our free institutions, we are indebted to the millions of her sons whom the old world has sent to our shores; for the preponderating power of the North is derived from this source. The contest would have ended far different but for this element of recuperative force. Slavery would have triumphed, and extended its sway over the land. The United States would never have attained to their present commanding position among the nations of the earth; they would have sunk down to the level of a slave empire, like Brazil, on the southern half of this continent.

If such results can be traced with mathematical certainty, as the effects of immigration, it would seem superfluous to enlarge upon the

subject with regard to our own State. Missouri was comparatively unpopulated fifty years ago (in 1810 it counted 20,000 inhabitants), and has been settled by immigrants within that space of time. Of those Missourians who are enumerated in the last census as born in the State, nine-tenths are the children of immigrants.

But this progress was slow and insignificant compared to what Missouri's progress will be during the next decade by immigration—nay, even to what it has been already during these last two years, since peace has returned, since she has become a free State, and since this board has heralded to the world that Missouri invites and offers such inducements to immigration.

The census of this State, taken in 1864, shows (see my statistical tables in appendix) a total white population of 850,737, and a colored population of only 69,229; making an aggregate population of 919,966, or about 262,000 less than in 1860, in consequence of the war.

The population at this date cannot be given; but by the kindness of the State Auditor, we can give the following very interesting and instructive table, showing an increase of over fifty-eight per cent. in the aggregate taxable wealth of this State:

	1864. (83 Counties.)	1865.) (84 Counties.)	1866. (103 Counties.)
Number of polls taxed	112,779	104,371	134,765
Number of acres taxed	23,027,772	24,270,008	29,690,156
Number of townlots reported	46,433	60,836	97,569
Value of real estate	$163,348,615	$209,494,131	$253,058,594
Personal property	45,569,742	52,860,801	77,972,780
Aggregate taxable wealth	208,918,357	262,354,932	331,031,374

Notwithstanding these facts, but few of us form an adequate idea of the benefits derived from a continuous and copious flow of immigration into the State. Some go so far even as to entertain fears of a reduction in the price of labor in consequence of excessive competition of "over-population" brought about by immigration. They forget that every new producer is at the same time a consumer, that new sources of employment and wealth are continually springing up in progressive communities, and that Missouri might increase its population tenfold and be less densely populated than some European countries with far inferior natural resources.

The so-called evil of over-population is moreover a fallacy, a false doctrine invented by aristocrats and their hired writers in Europe, for the purpose of covering up the sins of bad government, and of institutions which either consume the marrow of the people or hinder their free development. That a people become as numerous as the sand of the sea, is always to be regarded as a divine blessing.

MEANS TO PROMOTE IMMIGRATION.

The subject being but imperfectly understood, its importance not sufficiently appreciated, and having but lately attracted the attention of State governments, it is scarcely to be wondered at that errors have been committed in the choice of means and in regard to the proper method to be employed for the enhancement of immigration.

Persons who wished to travel and live at public expenses have applied to Governors and State legislatures for appointments as agents, pretending that they could, and by their exertions and influence

would, send thousands of immigrants to such States. Some have succeeded in obtaining an appointment, have actually been commissioned and sent by several States on mostly fruitless errands (except, perhaps, to themselves) at a more or less heavy cost to the State. In 1863, the late Governor Gamble commissioned an agent from this State; but the Legislature failed to confirm the appointment and to appropriate means for the office. The agent himself probably saw his mistake in anticipating great success for the cause of immigration as well as for himself; and all we know of the results of this mission is, that the agent went to Europe at the expense of several Missouri railroad companies (especially of the Pacific, the same company which now refuses half fare privileges to the best possible immigration agent it could desire, that is: to the immigrant himself who settles on the line of its road), and that the first and only attempt to import laborers through his agency (for the foundry of Mr. Filley) was a signal failure.

All similar attempts to import laborers through agents commissioned ad hoc, or by means of so-called emigrant companies, however zealous and active their officers, however honored the names of their directors may be, must prove abortive (witness the last importation of Scandinavians; see appendix page). The only sound immigration, valuable alike to the immigrant and to the land of his adoption, is that which is voluntary, prompted by no other agency save that of his own free deliberation, in which he is guided by his own judgment, must rely on his own exertions, instead of being directed or led like mere merchandise or a drove of cattle.

In order to decide by what means and methods such emigrants can and ought to be guided in the choice of their destination, it is necessary to inquire into the motives which impel the majority of them to seek a new home.

Every human being is attached to his native soil, to the place, site and country of his birth, and in order that he should wish for a change, decide to abandon the land of his fathers, leave associations and surroundings endeared by habit, and emigrate to a new, strange country, he must have the certainty beforehand, not only of favorable prospects for the bettering of his condition and that of his family, of a more productive soil, a milder climate, more remunerative employment, but principally of finding just and equitable laws, an impartial enforcement of them, a more liberal, a less oppressive government than that which he leaves behind and has learned to hate, perhaps; and finally of meeting with friendliness, protection, disinterested advice, and good will on the part of those with whom he is going to cast his lot. In a word, he must feel confidence in the future. Some of the most fertile countries in the world, the most blessed in sun, soil and station, are the least productive, the most scantily peopled, the most miserable. Men will face the dangers of the wilderness, the unclemency of seasons, toil, hunger and disease rather than face bad government, intolerance, or the unfriendliness, the hostile spirit, may be, of those on whom they have to depend for society and co-operation.

Whenever, therefore, inducements like the above can be afforded to the immigrant (as in the case of our own State), he will be sure to come of his own accord, not merely from Europe, but from the North, to seek a milder winter; from the East to find cheaper and more fertile lands; from the South to escape sooner the blasting effects of slavery and rebellion, which will be felt yet for decades.

Cheap and safe transportation, offers of remunerative employment, of lands at low prices and easy terms, and the dissemination of facts showing the various advantages which a State offers, may, undoubt-

edly, greatly facilitate and promote such immigration, but the one thing which is necessary before all other things, is that the advice tendered be disinterested, that it bear the impress of truth on its face, that the information be conveyed through channels which are above suspicion, and in which the emigrant can and will confide. But no paid traveling agent, no emigrant company whose aim and object is pecuniary gain (however laudable the enterprise may be in itself), will command the confidence of the naturally diffident emigrant. A simple written statement or letter to his friends or relations from any farmer or mechanic who has made this State his home, a pamphlet emanating from reliable and unsuspected sources, setting forth facts in plain, unadorned language, and distributed by trusty persons or friends, will be of more practical effect, gain readier credence than the most elaborate treatise, or the most fertile eloquence of paid agents, who are already suspected of interested motives. This Board of Immigration has acted in conformity with these views.

AGENTS.

Applications for salaried agencies in or to Europe have invariably been declined, and commissions as agents of this board have been granted only in cases where well known and reliable persons, traveling on their own account—as honorary members as it were—offered to use their influence among friends in their native countries for the promotion of the objects of this board. Small salaries have been paid only to one clerk of the secretary of this board, who attends to its office, doing all the clerical labor connected with the same, and to agents in the United States. The amount paid to the latter is so insignificant as to be hardly anything but an inadequate compensation for the time which these gentlemen have devoted to correspondence, to the answering of thousands of letters of inquiry from parties contemplating removal to this State, to the distribution of pamphlets, books, newspapers and the publications of this board, as will be seen from our treasurer's accounts and from their reports in the journal of proceedings of this board.

I deem it my duty to make special mention, however, of our agent in Bremen, Mr. Hauschild, editor of the Auswanderer Zeitung, who has shown what a disinterested, active and efficient agency can accomplish. By his co-operation with the honored member of our board, "Father Muench" (as Missourians call the pioneer of German immigration to their State), by publishing his many interesting articles and correspondences, not merely in his paper, but in most of the leading German journals, Missouri stands now pre-eminent in the views of of the German emigrants. The amount placed at his disposal by this board for the distribution of our publications and other expenses ($300) seems to have been most judiciously managed. He kept up a regular (and costly) correspondence with us and others working in the cause of immigration, has published himself very useful German circulars and a pamphlet containing valuable advice to emigrants (appended, also, to Muench's Handbook), without a cent of extra charges to the board.

It would be very desirable to have an agency at New York to advise and direct those arriving at that port for Missouri, as also for the purpose of neutralizing the damaging influences of other State agencies and of interested companies who mislead the emigrant. It was the intention of the board to engage (Mr. Frank) one of the employes of Mr. Cummings, the United States Commissioner of Immigration,

but the appointment seemed incompatible with his other duties, and we have had neither the means nor the opportunity to engage another competent and trustworthy person.

While, as before stated, we discountenance the sending of agents to Europe altogether, convinced that immigration cannot and ought not to be constrained in any mode or form whatever, an efficient agency at New York, protecting, aiding and advising those who arrive there with the intention to go to Missouri, or without predetermined point or destination, is deemed very important, and would become the means of securing a large share of the voluntary emigration arriving at that port for the State of Missouri.

Besides the before mentioned immigration agents, this board found it necessary to have a special soliciting agent to obtain contributions for the "Immigration Fund." It soon became evident that the mere opening of books and inviting by advertisement for that purpose would remain fruitless, and that it requires the active and unremitted endeavors of one person, at least, if we wished to obtain any pecuniary aid from corporations or individuals. The first soliciting agent of this board, Mr. Bittman, felt soon discouraged by the indifference with which he met, and which sadly disappointed his, at first, sanguine expectation, and he resigned, retaining the whole amount collected, except the contribution of the county court of St. Louis county, for salary and incidental expenses claimed by him. The board does not recognize this claim, as it had fixed (and Mr. Bittman had agreed to) the compensation of the soliciting agent at fifteen per cent. of the amount collected. His successor in office, Mr. Schinkowsky, followed an entirely different course. He addressed himself not to the rich corporations and capitalists, but to the middle classes—to men of smaller means and of larger hearts. He went into the country towns and addressed himself to the farmers, to the people, and glowing with an ardent love and zeal for the cause, he warmed others with the same. The very long list of contributors which he obtained clearly shows his results in a pecuniary point of view, and he gathered, moreover, much useful information for the benefit of immigrants and of the localities which he visited. He sent mechanics, laborers and settlers of various trades, wherever they were wanted, or good openings appear to invite such immigration; and, what is most valuable, he wakened the spirit of others to work for the promotion of our cause.

PUBLICATIONS.

The act creating this board provides that its members shall publish or cause to be published pamphlets, essays, and articles treating on and describing in a true light the developed and undeveloped agricultural and mineral resources of the State of Missouri, our facilities for navigation, etc. I felt the great importance of this task, but I felt also, that I had neither the ability nor the time to perform the labor which this task would necessarily require; moreover the materials, the statistics, for such a work were wanting. I do not like to deal in generalities; I deem the dryest statement of facts more useful and even more interesting than the most polished highfaluting sentences. The inexhaustible mineral wealth of our mountains of iron, the magnitude of our rivers, the Missouri and the Mississippi, "connected with seas by the head and by the mouth, stretching their arms toward the Atlantic and the Pacific," are known to the world. The emigrant desires to know more, he wants to receive correct and detailed statistical information about hundreds of facts relative to spe

cial localities, about local, commercial, agricultural and manufacturing interests, about churches, schools, and the state of society, chances of employment, price of labor and of land. To furnish such information a mere digest of the census returns is not sufficient. The facts and figures of the census return of 1860, imperfect and incorrect as they necessarily are in many respects, have become still more so by the great changes which the great rebellion had caused. It became, therefore, my first aim to obtain the necessary information, and I addressed circulars for this object to all the clerks of the county courts, and to about one hundred prominent citizens in various parts of the State. I called upon all citizens who could give such information through the colums of the Missouri Democrat; but few and very incomplete answers were received in return. The necessity of a bureau of statistics, recommended about twenty-five years ago by a select committee of the House of Representatives, but unfortunately not yet established, was decply felt by me; and in this connection, I may state that the first cause of disharmony between the former treasurer of this board and myself, was his publishing a specimen circular pretending to give information about Missouri in the name of this board, which I had never seen before, but for which I (as its secretary) was naturally held responsible. He also issued a circular with inquiries about information for immigrants, but retained the answers received for his own use, as agent of the American Emigrant Company, in whose interest he advertised for hundreds of laborers to be sent south; and thus a harmonious co-operation between us became more and more impossible. I deem this statement due to Mr. Souper, as well as to myself, to show that our disharmony was of no personal character, and also to explain why some letters of information probably intended for this board, but addressed to its former treasurer, are not mentioned in the annexed synopsis. Some letters giving information, mainly about the agricultural interest of the respective counties, were furnished to the Secretary of the State Board of Agriculture, and are published in the very interesting report of that board for 1865.

While thus our materials as well as our pecuniary means were very limited, the important duty of publishing and aiding in the publication of books and pamphlets about Missouri was, nevertheless, not neglected. In one of the first meetings of the board, I was directed to secure from Mr. Nathan H. Parker one thousand copies of the Missouri Handbook, which he was then about to publish, and the sum of four hundred dollars was advanced to him by the board to aid in its speedy publication, as it was desired to possess soon some such book for the information of immigrants. Nevertheless, more than three months passed before the little volume of about one hundred and sixty pages was issued, and then it had gone into the hands of Mr. Pinckard, as publisher. The information it contains, although not as correct and as full as the board expected (the author referring for such information to a larger work, "Missouri as it is in 1865," the publication of which he contemplated), makes it quite acceptable, and a second edition has become necessary. The board has distributed over six hundred copies of this handbook. But as this board takes no pay whatever for any of its publications, it would have been beyond its means to take a larger amount at the publisher's prices, and a cheap publication of its own was needed for gratuitous distribution. The proposition of Rev. Mr. Willis, to publish a circular on Missouri, in at least ten thousand copies, toward the cost of which the Hannibal and St. Joseph and the North Missouri Railroad would contribute about two-thirds, for the privilege of using one-third of the space for the advertisement

of their lands, was therefore very acceptable, and it proved so excellent and cheap a mode of publication, that it is hoped and desired that another similar circular be issued very soon—wherein the Southwest Pacific and Iron Mountain Railroad are expected to join. This would not only prove for their interest, but would remove at the same time the erroneous impression that this board favors the northern part of Missouri more than its southern half, which is by no means the case.

At the same time this board caused its agents to publish hundreds of articles (which if collected would form quite a respectable volume) through the press, especially of the eastern States and of Europe; and all those who write about Missouri should bear in mind that our papers here, even those having the largest circulation, do not reach beyond a very limited circle outside of this State, and are, so far as immigration and representing Missouri and her resources before the world abroad is concerned, of very little use. It was the more gratifying, therefore, that the wide-spread New York Tribune consented to publish that series of articles on Missouri which Professor Waterhouse had the kindness to write at the request of the president of this board.

Nor did this board forget the importance of publication for the invitation of foreign immigration. Besides the excellent German Handbook of Mr. Muench, already mentioned, which speaks in a most interesting and winning style, in the tone of a true and experienced friend to his younger countrymen, this board has purchased and distributed five hundred copies of an interesting book of Mr. Hertle on the great rebellion, which is written by a Missourian with a view to the great future of Missouri. This board has also distributed thousands of copies of the well-known inaugural address of our Governor, with an explanatory introduction written by Mr. Muench for our special purpose; it had also printed and distributed the same address in the French language. One of the most valuable and useful publications for the purpose of this board is undoubtedly the report of the State Board of Agriculture, and it is hoped that we shall be favored with a share of the second edition of that volume, published by authority of the General Assembly. The expenses of distributing the same is very considerable; and this is a reason more why this board should be charged with its distribution, as otherwise it may well be feared that this valuable volume, which cannot fail to invite hundreds of farmers to our soil, would lay idle in the cellars of the capitol or on the shelves of representatives, but would not be sent abroad as it ought on account of the postage. In conclusion, I may mention that several thousand copies of a little map of Missouri have been freely distributed by us among those seeking a new home in Missouri.

CHEAP LANDS.

Among the principal means of attracting immigration are cheap lands, of good quality, offered to immigrants in small quanties and on easy terms.

Of the 35,000,000 acres of agricultural lands in Missouri, less than 7,000,000 are now cultivated; and although scarcely 6,000,000 acres of public lands are left open to entry under the homestead law, and these mostly distant from markets, and from all means of communication with markets, there is evidently an abundance of excellent lands which can be purchased at very low figures from their present owners, to whom they are merely a burden, being entirely unproductive and

yet subject to taxation. It has been characteristic with the people of all slave States that they deemed the possession of very large tracts of land almost indispensable. One thousand acres was considered a very moderate size for a farm; but we begin to realize the fact that a few acres well cultivated will yield more profit and more pleasure than a thousand badly managed and uncultivated. These same large landowners are now eager to get rid of their surplus; and far from being land speculators, they are but too unwilling to subdivide it in forty or eighty acre tracts and to sell it thus gradually, but want to get rid of it at once. Thus it is, that while hundreds of thousands of acres are offered for sale, the immigrant finds it difficult to purchase a small tract, or to buy on time.

This circumstance has greatly aided the Hannibal and St. Joseph Railroad Company in disposing of their lands (granted to them in aid of constructing their railroad) at higher prices than similar and even better lands could be purchased from private individuals, and has greatly contributed to attract immigration to that portion of our State more than to any other. By the extension of the Southwest Pacific Railroad several hundred thousand of acres in the beautiful southwest will be offered in similar manner, in small tracts and on easy terms of payment, and cannot fail to attract a large influx of immigration to that section. By the bill securing a grant of lands to aid in the construction of the Kansas City and Neosho Valley Railroad, which was passed by Congress during its last session, and by another bill "granting lands to the States of Missouri and Arkansas to aid in extending the Iron Mountain Railroad from Pilot Knob to Helena," also passed during the same session, and by the actual extension of these roads, lands in nearly all parts of the State will be opened to the immigrants in small quantities and at easy terms, together with all the advantages of communication. From the inquiries daily received by the secretary of this Board of Immigration concerning these lands, it is evident that thousands, especially from the cold northern States, intend to remove to those lands, and it will be for the interest of the various railroad companies to furnish to this office full description and maps printed for gratuitous distribution. It will be, on the other hand, the duty, and will demand the special attention, of this board to see that the immigrants should be fairly dealt with by those companies and their agents.

For the benefit of those who may prefer to select some of the public lands, which may yet be left subject to purchase at $1 25 to $2 50 per acre, or to acquire such lands under the homestead law, the rules and forms for such entries are published in the appendix, and are furnished free of charge, on application to the secretary of this board.

CHEAP TRANSPORTATION.

That low fare will facilitate immigration; that persons will soon come to view lands where they intend to settle if the cost is light; that men of large family are often prevented from coming by the heavy cost of transportation, are so plain propositions that they require no argument. How very heavy the price of fare on our Missouri railroads, how detrimental to the cause of immigration, will be plainly seen from the following figures

PRICE OF TRANSPORTATION OF IMMIGRANTS.

From New York to St. Louis	1,145	miles.	$15 50
" St. Louis to Kansas City, Mo	283	"	14 50
" New York to Chicago	955	"	13 00
" New York to St. Joseph, Mo	1,429	"	30 00
" New York to Cleveland, Ohio	604	"	8 50
" St. Louis to Sedalia, Mo	189	"	9 50
" Hannibal, Mo., to St. Joseph, Mo	206	"	10 50

It is untrue, as has often been charged, that Eastern roads discriminate in favor of Chicago and against St. Louis. The immigrant's fare from New York to Chicago is $13 00, to St. Louis $15 50; but the distance to St. Louis is two hundred miles greater than to Chicago, and that distance on our own Missouri railroads would be $10 50, while the immigrant fare for the whole distance from Baltimore to St. Louis is only $12 50. Would not some legislative action, requiring the various railroads in this State to pass immigrants at the same fare as they transport United State troops, i. e., two cents per mile, be practicable? This would still be about twice as much as Eastern roads charge to immigrants at Castle Garden, New York, or over the Baltimore and Ohio railroad. The North Missouri and Iron Mountain railroad companies and Southwest Pacific and Platte County railroads have proven their willingness to do so, but some officers of the main line of the Pacific and Hannibal and St. Joseph railroads seem not to possess that liberality which in fact would only have to promote their own interests; and I believe that these also would willingly comply with a law regulating the fare of immigrants as herein recommended.

REMUNERATIVE EMPLOYMENT.

It is a fact demonstrated in the last United States census report, that the Irish as well as the German immigrants show a preference of the city to the country, in the selection of their places of occupation and residence, and thus a disproportion between city and country residents is found generally among the foreign citizens of the United States.

In St. Louis we find that the foreign population is equal to about 61 per cent., while in the rest of the State it is about 8 per cent. only. From which it is evident that whatever the philanthropist may speak of the great blessings offered to immigrants in the cheap and fertile lands of this State, and inviting them to a comfortable home in our western wilds, opportunities of remunerative employment are in reality far more important to the willing laborer coming to this State. It requires more capital than the majority of immigrants, after paying for their passage from Europe, can command, to transform the wilderness into a garden and to subsist a family in the meantime. It is thus that the immigrants, natives of other States of this Union, are by far more benefited by our cheap lands than foreigners. Remunerative employment, in the way they have been accustomed, is therefore of first importance to attract foreign immigration.

It is one of the main endeavors of this office, therefore, to gather information about the amount of wages paid, the cost of boarding, etc., in the various towns of this State, and to direct mechanics and laborers to such points where they are most needed, or may, at least, be sure to find employment.

With the rapid increase of manufacturers in our State, employment will not be wanting, and with the rapid increase of immigration the

manufacturing industry will be greatly benefited. At the present day St. Louis employs about 6 per cent. of its population in manufacturing of all kinds, while Pittsburg and Cincinnati employ each over 18 per cent.

This fact plainly proves to the statist that a very large immigration is needed before we can attain that eminence in manufacture for which we possess the useful minerals, and other raw material, abundant water power, and an immense range of markets. But for a profitable expansion of our manufactories capital is yet scarce, and we must therefore depend for the present mainly on those branches of manufacture which require comparatively little capital and skillful labor; as the manufacture of lumber, for which the extension of our railroad will be of peculiar value, and the manufacture of agricultural products, especially of flour, in which Missouri ranks already first in the whole world.

The system of forming associations for manufacturing purposes, which has of late been commenced also in our State, and begins to find favor, will be of great advantage, not only to our people, but also to the cause of immigration.

In this connection I may mention that associations have also been formed for grape growing, which will help to develop one of the richest resources of this State, and will, in course of time, furnish very remunerative employment to thousands of immigrants.

SOCIAL ENJOYMENTS.

Man thinks of what he left; what he was wont to do, lives in his memory—a paradise lost! It is from this that most immigrants feel at first unhappy, even though they cannot say, and we can still less understand, "why."

Wherever the immigrant can find society, people from his native home, where he can speak the language of his childhood, can visit the church in which he had been brought up,* can sing with friends the tunes of known melodies, can dance and play the games of his youth, can drink his long cherished beverages—there he will much sooner feel at home again, and will invite others to join him.

Thus social enjoyments—the flowers on the thorny path of life—are among the principal means of attracting immigration.

And this fact alone should be sufficient to make us more tolerant and not to begrudge the enjoyments of life to those who have different

*The following is a table of churches in Missouri (from United States census, 1860).

Denominations.	Number of Churches.	Total aggregate accommodats	Value of Church Property.
Baptist	457	141,515	$ 573,260
Christian	150	54,100	203,800
Episcopal protestant	18	8,755	261,100
Jewish	2	1,000	50,000
Lutheran	55	10,905	92,725
Methodist	526	150,160	959,125
Presbyterian	127	47,050	601,200
Presbyterian (Cumberland)	98	30,805	128,125
Roman Catholic	88	38,826	1,391,632
Union	54	16,075	121,800
Unitarian	2	1,425	101,000
Total	1,577	500,616	$4,509,767

habits perhaps from our own. Our habits change and improve by those imported from foreign countries. Every one of us remembers the time when Dutch "lager beer" and "sour krout" were used as terms of reproach and ridicule; now they form most important articles of our manufacture and trade, sources of wealth, and are used more or less by almost every American in this State. Our German vintners will prove still greater apostles of temperance and reformers; they will be great promoters of immigration, but to invite them we must not impose on all a puritan observance of the Sunday, we must not attempt to banish music and dance; but should grant to all the social enjoyments of life, each according to his own fashion.

EMIGRANT AID SOCIETIES AND AUXILIARY BOARDS OF IMMIGRATION.

Benevolent societies, aiding poor and distressed foreign immigrants, have been established for nearly a century in America, and have done incalculable good. They will continue to do so as long as they have no necessary motives but are purely philanthrophic. Although not intended to promote immigration, they have that tendency, and as such should be fostered and encouraged by and receive the surveiling attention of the State and municipal governments.

The German Emigrant Aid Society of St. Louis is known and accredited all over Germany, and is looked to with the fullest confidence by all who arrive here from that country. This State can be proud of possessing one of the most munificent legacies for the benefit of immigrants—the Mullanphy Fund. Consisting of very valuable but mostly unimproved lands, it had at first to be made productive to become of practical value. The time has now arrived when its rents and earnings will in all probability commence to bestow the blessings for which it had been intended by its founder.

Local auxiliary Boards of Immigration have been established in various parts of this State, intended to promote immigration. After organizing by election of officers, etc., the secretaries have generally called on me in person or by letter, asking for information what and how to do.

It is not the intention of this board to exercise any control over these local organizations, but it desires to facilitate a useful and cordial co-operation, and I therefore beg leave to make the following suggestions:

1. Every such board should send a written notice of its organization to the secretary of this board, with the names of its members, its location, etc.

2. It should keep us informed, from time to time, of the favorable openings afforded to peculiar trades and classes of immigrants in their respective localities, the want of labor, skilled and unskilled, the wages there paid, the average cost of board, etc.

3. It should name reliable persons friendly to our cause who may be able and willing to give, to immigrants, induced to go there by this board, its agents or officers, reliable and disinterested advice and information.

4. Local auxiliary boards may be the means of promoting immigration by inducing their large landowners to subdivide the surplus of their land into small tracts, and to offer these at reasonable prices and on easy terms to immigrants, and not to retard or drive away immigration (as is often done) by refusing to do so, or by holding land, unimproved, at a high and merely prospective value. They may attract immigration by kindness and friendliness to the new comer, by

encouraging improvements and industrial enterprises in their midst, by a thousand ways, partly indicated in this report.

This board will take pleasure to send to every auxiliary board copies of its publications for distribution free of charge. It asks nothing in return, but any voluntary contribution to the Immigration fund will be applied for such publications as will be calculated to promote immigration to our State. Such donations or contributions to the Immigration Fund should be sent only to Mr. Amade Valle, treasurer of this board, St. Louis (or may be received also by its special soliciting agent, Mr. Schinkowsky). All other communications, especially all information in the interest of immigration, will be thankfully received by the undersigned.

Your most obedient servant,

ISIDOR BUSH, *Secretary.*

STATISTICS CONCERNING IMMIGRATION, COMPILED BY ISIDOR BUSH, SECRETARY BOARD OF IMMIGRATION.

POPULATION OF THE STATE OF MISSOURI.

COUNTIES.	U. S. CENSUS, 1860.		STATE CENSUS, 1864.	
	Total White Population.	Total Col. Population*	Total White Population.	Total Col. Population.
Adair	8,436	95	5,513	2
Andrew	10,949	901	8,783	198
Atchison	4,578	71	4,469	58
Audrain	6,909	1,166	4,655	698
Barry †	7,738	257	4,700	90
Barton†	1,796	21	300	.....
Bates	6,765	450	382	8
Benton	8,460	612	4,812	151
Bollinger	7,126	245	4,410	57
Boone	14,399	5,087	13,509	2,265
Buchanan	21,799	2,662	17,389	899
Butler†	2,837	54	1,690	.....
Caldwell	4,810	224	3,934	148
Callaway	12,895	4,554	7,706	2,758
Camden	4,769	206	4,048	100
Cape Girardeau	13,961	1,586	12,562	901
Carroll	8,692	1,071	4,775	328
Cass	8,781	1,013	1,621	134
Carter†	1,200	35	800	.....
Cedar	6,420	217	2,682	53
Chariton†	9,672	2,890	7,800	1,000
Christian	5,262	229	3,529	68
Clark	11,216	468	4,467	19
Clay	9,525	3,498	9,421	1,814
Clinton	6,685	1,163	6,187	525
Cole	8,645	1,052	8,900	1,172
Cooper	13,528	3,828	11,809	4,498
Crawford	5,640	183	5,607	154
Dade	6,721	351	4,451	105
Dallas	5,777	115	4,336	42
Daviess	9,248	358	8,688	229
De Kalb	5,081	143	3,681	62
Dent	5,498	156	3,111	13
Douglas	2,414	.....	1,975	2
Dunklin†	4,855	171	3,000	60
Franklin	16,465	1,620	17,509	811
Gasconade	8,642	85	8,783	122
Gentry	11,862	118	5,686	.....
Greene	11,509	1,677	13,282	584
Grundy	7,596	291	5,893	33
Harrison	10,601	25	9,745	23
Henry	8,620	1,246	6,031	451
Hickory	4,503	202	3,268	87
Holt	6,241	309	6,470	64
Howard	9,986	5,960	8,647	3,942
Howell†	3,133	36	2,000	.....
Iron	5,529	313	3,843	211
Jackson	18,899	4,014	8,528	1,335
Jasper	6,533	350	878	5
Jefferson	9,763	381	9,212	154
Johnson	12,743	1,901	4,655	602
Knox	8,436	291	7,540	337
Laclede†	4,875	307	2,500	100
Lafayette†	13,688	6,410	9,000	5,000
Lawrence	8,559	287	3,872	60
Lewis	10,983	1,303	8,873	822
Lincoln	11,347	2,868	8,892	1,172

POPULATION ON THE STATE OF MISSOURI—CONTINUED.

COUNTIES.	U. S. CENSUS, 1860.		STATE CENSUS, 1864.	
	Total White Population.	Total Col. Population*	Total White Population.	Total Col. Population.
Linn	8,509	603	8,095	480
Livingston	6,812	605	7,581	387
Macon	13,673	673	12,782	556
Madison†	5,179	485	4,400	150
Maries	4,830	71	3,527	17
Marion	15,732	3,106	12,538	1,929
McDonald†	3,957	81	2,000	25
Mercer	9,274	26	8,242	74
Miller	6,572	240	5,712	92
Mississippi	3,849	1,010	3,395	266
Moniteau	9,375	749	9,677	484
Monroe	11,722	3,063	7,667	1,780
Montgomery	8,061	1,657	6,619	966
Morgan	7,545	657	5,961	420
New Madrid†	3,863	1,791	2,000	600
Newton†	8,842	477	4,500	150
Nodaway	5,123	129	5,576	75
Oregon†	2,983	26	1,900	.....
Osage	7,623	256	8,245	86
Ozark†	2,361	86	1,500	60
Pemiscott†	2,682	280	1,900	80
Perry	8,366	762	5,632	216
Pettis†	7,504	1,888	6,000	2,000
Phelps	5,628	86	5,886	205
Pike	14,302	4,115	14,820	2,771
Platte	14,981	3,369	10,147	400
Polk	9,468	527	8,067	208
Pulaski†	3,779	56	3,500	100
Putnam	9,176	31	8,009	23
Ralls	6,788	1,804	5,976	814
Randolph	8,777	2,630	6,971	1,015
Ray	12,038	2,054	9,664	787
Reynolds†	3,135	38	2,500	30
Ripley†	3,666	81	2,000	50
St. Charles	14,313	2,210	14,565	1,168
St. Clair	6,229	583	2,426	56
St. Francois	6,292	957	5,955	201
Ste. Genevieve	7,323	706	5,640	446
St. Louis	184,313	6,211	178,407	9,413
Saline†	9,800	4,899	6,000	3,500
Schuyler	6,658	39	4,750	1
Scotland	8,742	131	7,986	59
Scott	4,730	517	4,862	162
Shannon†	2,271	13	1,500	.....
Shelby	6,565	737	5,317	522
Stoddard	7,659	318	4,292	37
Stone	2,384	16	1,355	7
Sullivan	9,095	103	6,934	20
Taney†	3,489	87	2,000	100
Texas†	6,009	58	4,000	40
Vernon†	4,712	138	1,200	.....
Warren	7,798	1,041	7,696	776
Washington†	8,670	1,053	9,000	700
Wayne†	5,361	268	3,000	75
Webster	6,879	220	5,344	97
Wright	4,442	66	1,930	22
Worth	.....	.....	2,782	5
Total in 1860	1,063,509	118,503	.....	.....
Partly estimated in 1864	.....	.....	850,737	69,229

*Slaves, only 3 per cent.

The counties marked thus (†) made no return to the State Auditor's office, and are merely estimated, but are believed to be substantially correct.

ISIDOR BUSH, *Secretary.*

POPULATION OF MISSOURI, AS AFFECTED BY IMMIGRATION.

YEAR.	Population if without immigration since 1820.	Increase by excess of births in 10 years.	Increase by immigration since 1820.
1820	66,557	9,642	.....
1830	76,199	11,121	64,256
1840	87,320	12,688	296,382
1850	100,008	14,542	581,936
1860	114,550	.....	1,067,462

Thus we find the remarkable result, that the immigrants to Missouri and their descendants, have increased her population by a number equal to the number of her entire free population, in 1860. And yet her progress by immigration falls far behind that of Illinois, as the following table exhibits:

YEAR.	Population of Missouri.	Population of Illinois.
In the year 1820	66,557	55,162
In the year 1830	140,455	157,445
In the year 1840	383,702	476,183
In the year 1850	682,044	851,470
In the year 1860	1,182,012	1,711,951

From the foregoing table of population in Missouri, in 1860 and 1864, it will be seen that the war of the rebellion has worked a great change in our population. While the population of Missouri had increased, from 1850 to 1860, seventy-three per cent., and at that ratio ought to have increased until 1864, about twenty-nine per cent., or to a total of 1,500,000, it has been reduced to about 920,000 only; and yet we find from the official report of the Auditor that the returns of valuation of property and productions have increased during the last two years to an amount far exceeding that of 1860. Can we give a stronger proof of the present rapid increase of population and returning prosperity of Missouri?

I intended at first to prepare a full statistical report concerning the population of Missouri, its progress, its increase compared with other States, and derivation of its population, its probable future increase, and wherefrom it is to be expected, to form at least the basis for future reports on this subject. But on the one hand I found the date and figures furnished by the United States census of 1860, made almost entirely useless by the great change produced during the late war; on the other hand, I learned that by an act of the last General Assembly the office of Commissioner of Statistics for Missouri was created, who is charged with, and paid for, obtaining and furnishing such information; and thus I abandoned the task, hoping that he will present a statistical report, in a more perfect form than I could under the circumstances, and which should be published, together with this report.

I have therefore restricted myself to the following abstract of some notes and tables concerning the statistics of immigration:

OF THE POPULATION OF MISSOURI (IN 1860) THERE WERE

Natives of this State (born in Missouri.)..... 475,246

Born in slave States.	No.	Born in free States.	No.
Alabama	3,473	California	213
Arkansas	4,395	Connecticut	1,422
Delaware	747	Illinois	30,138
Florida	57	Indiana	36,463
Georgia	2,568	Iowa	9,982
Kentucky	99,814	Kansas	1,069
Louisiana	1,389	Maine	955
Maryland	6,015	Massachusetts	2,702
Mississippi	3,324	Michigan	1,270
North Carolina	20,259	Minnesota	215
South Carolina	3,913	New Hampshire	794
Tennessee	73,594	New Jersey	2,088
Texas	641	New York	14,585
Virginia	53,957	Ohio	35,389
District of Columbia	426	Oregon	68
Not stated	2,940	Pennsylvania	17,929
		Rhode Island	305
		Vermont	1,835
		Wisconsin	1,863
		Territories	365
		At sea	132
Total born in slave States	277,512	Total in free States	153,782

Total born in the United States (free and slave States)..... 906,540

NATIVES OF FOREIGN COUNTRIES.

Nationality.	No.	Nationalty.	No.
Asia	15	Africa	8
Australia	54	Atlantic Islands	6
Belgium	311	British America	2,814
Central America	1	China	3
Denmark	464	England (including Great Britain, not specified)	10,123
France	5,283	Germany (including Austria)	88,437
Greece	9	Holland	769
Ireland	43,464	Italy	554
Mexico	75	Norway	146
Portugal	28	Poland	339
Pacific Islands	2	Russia	72
Scotland	2,021	Spain	52
Sweden	239	Sardinia	49
Switzerland	4,586	South America	21
Sandwich Islands	2	Turkey	3
West India	137	Other countries	100
Wales	305	Total born in foreign countries	160,541
		Total free population in Missouri	1,067,081

RATIO TO TOTAL POPULATION.

Born in the State	44.5 per cent.
Born in other States. (From slave States 25.7, from free States 14.4)	40.1 per cent.
Born in foreign countries	15.1 per cent.
Nativity unknown	00.3 per cent.

Thus, the native of every State of the Union and of nearly every country of the civilized world is found in Missouri. Less than one-half

of her population are born in the State, and considering that the largest portion of these are now below the age of twenty years, and are the children of immigrants from other States and foreign countries, it must be evident that sectional feelings, nativism and its omne genus ought not and in fact cannot in reality exist in the heart of such a people. Whatever there appeared of it in political agitations and party organizations, was the mere croaking of demagogues, who always try to gain popularity by pandering to the prejudices of the selfish, the narrow-minded and the ignorant. While such will exist among every people, they will form but a miserable minority among one composed as ours is.

The loss of population this State has suffered during the four years from 1860 to 1864, has been doubtless larger among that portion which was born in slave States, and thereby misled to join the southern rebellion, than among those born in free States. Moreover, a large number of the former, having sympathized with the south, and being consequently charged or suspected of disloyalty by their neighbors, are, dissatisfied with the present somewhat uncharitable rule of the Radicals, seeking new homes in other States. At the same time, many who heretofore removed westward, but avoided Missouri on account of the existence of slavery therein, are now coming to this State; so much so, that there is no doubt that, at no distant day the proportion of our population born in free and in slave States will be the very reverse of what the preceding table from the United States census of 1860 has shown.

To the statist, who knows that the migratory movement acts under fixed geographical limitations, directed by the influences of the climate, the following figures will be equal to a mathematical demonstration of my assertion.

There lived in 1860, persons born in

	New York	Pennsylvania.	New Jersey.
In Iowa	46,053	52,156	4,114
In Minnesota	21,574	7,606	777
In Michigan	191,128	17,460	7,631
In Wisconsin	120,637	21,043	3,306

Add to these the number of persons born in Delaware, Maryland, Ohio, and Indiana, now living in those northern States, and we find that under the isothermal laws of migration, a large immigration must flow from those northwestern States to our more congenial climate.

Looking to the foreign immigration, I can with the same certainty predict that it is useless for Missouri to expect a large influx from Norway and Sweden, from Denmark, Scotland, or even from Canada. It is to the zone where the vine and the corn grows that we must look to as the proper source of immigration to Missouri. Germany, Switzerland, Hungary, Bohemia and Poland will contribute during the next decade a larger ratio to the population of this State than to any other.

In vain does the Commissioner of Statistics of Minnesota, flatter himself that as his State unites, in his opinion, the characteristics of northern and southern climates, as it produces the wheat of Canada, the corn of Ohio, the oats and barley of Scotland, and the melons of the Mediteranean, it will converge the tendencies of immigration from climates far apart. His own tables show that, in 1860, already the ratio per cent. of its whole population derived from the southern belt was only three per cent., while from the northern belt, it was nearly seven per cent.

The Hibernians and Scandinavians, following the climate analogies from their origin to their destination, will move northwest. The principal volume of the Teutons, the Francs and the Sclavonic people will move southwest, and pour especially into Missouri.

I had intended to show, by statistical facts and figures, why they will prefer Missouri as the State whose healthy, mild climate, rich soil and central position, promise success in every department of agricultural industry; whose valuable timbers, exhaustless mines, and abundant water power, give a wide scope to industry and manufactures. But I am glad to know that these facts will be more fully shown in the report of the Commissioner of Statistics for Missouri, and I hope that his report will be permitted to be added to this first report on immigration to Missouri.

PROCEEDINGS

OF THE

STATE BOARD OF IMMIGRATION.

FIRST MEETING.

ST. LOUIS, March 27, 1865.

The Board of Immigration met at the office of the Union Savings Association, corner Main and Walnut, pursuant to an act passed at the last session of the Missouri Legislature; there being present Governor Thos. C. Fletcher, Hon. Francis Rodman, Hon. Frederick Muench, Thos. E. Souper, Esq. Absent—Hon. Isidor Bush.

Hon. Francis Rodman moved that the Board proceed to ballot for Recording and Corresponding Secretary.

Isidor Bush, having received all the votes cast, was declared unanimously elected.

Thomas E. Souper, having been nominated by Mr. Rodman for Treasurer of the Board, was unanimously elected viva voce.

Francis Rodman, having been nominated for Vice President, was unanimously elected.

Mr. Rodman offered the following resolution, which was adopted:

Resolved, That Hon. Frederick Muench be requested to prepare a German commentary on the Inaugural Message of Gov. Fletcher, to be distributed in the German States with the copies of the message now on hand; also, that he rewrite his work on Missouri, in a condensed manner, for the use of the Board and for distribution; and, also, that he will keep up and extend his extensive correspondence on the subject of the resources of Missouri, both in the United States and in foreign countries, and the Treasurer pay the bill of stationery and postage he may present for that purpose, when the same is approved by the President.

Various communications addressed to members of the Board of Immigration were read. The subject of soliciting and obtaining means and appointing agents was discussed; after which, on motion, the Board adjourned to meet again next day at 3 P. M.

Approved:

THOS. C. FLETCHER, *President.*

ADJOURNED MEETING.

ST. LOUIS, March 28, 1865.

The Board met pursuant to adjournment, at 3 o'clock P. M. (at the same place as on yesterday), all the members being present. The minutes of the previous day's session were read and approved.

After discussion on the subject of inviting essays on the resources of this State, and the advantages offered by it to immigrants, as also on the various modes of soliciting contributions, the following resolutions were offered by Mr. Rodman and passed:

Resolved, That the President of the Board and Hon. Fred. Muench are hereby appointed a committee to prepare and issue an address inviting essays on the subject of the resources of the State, and to collect contributions for the objects of the creation of this Board, and that each member of the Board is authorized and requested to solicit and receive subscriptions for said purpose.

Resolved, That agents and correspondents be invited by the Board, and employed by the President, if necessary, to assist in such localities as the Board may deem best, in raising funds by subscription for the object of this Board.

It being understood from various sources that some eastern railroads discriminated in favor of immigrants to the Northwest, Mr. Muench offered the following:

Resolved, That the Secretary is authorized and directed to apply to the Ohio and Mississippi, and the St. Louis, Alton and Terre Haute railroads, that they might encourage the travel of immigrants to Missouri, by special low rates and other facilities.

Mr. Bush laid before the Board a letter directed to him by Jas. M. Carpenter, Esq., Secretary of the Board of Commissioners of the Mullanphy Emigrant Relief Fund, tendering the use of the office to this Board, which had come to hand too late to be submitted to the President of this Board in time for its first meeting; which, being read, the President offered the following resolution, which was adopted:

Resolved, That the next meeting of this Board be held at the office of the Board of Commissioners of the Mullanphy Emigrant Relief Fund; and for the kind invitation to meet at said office, the thanks of this Board are hereby tendered to said board.

Various communications were read, and, on motion of Mr. Souper, it was

Resolved, That the Secretary be requested to acknowledge receipt of the letter of Mr. John Williams, of February 17, 1865, addressed to Gov. Fletcher; also, to ascertain the status of the American Emigrant Company, and to report to this Board.

Resolved further, That the Secretary be also requested to open up a correspondence with the Bureau of Immigration at Washington and New York, reporting the formation of this Board and its objects.

Mr. Nathan H. Parker, who desired to submit to this Board his work, The Missouri Hand-book and Geological Map of the State of Missouri, was invited, his work examined and discussed, all the members being familiar with his former edition of Missouri As It Is, and thereupon the following resolution was proposed by the President and adopted:

Resolved, That, having examined the manuscript of a book now in press, by Nathan H. Parker, entitled The Missouri Hand-book, this Board is of opinion that said book is eminently truthful and concise in the representations of the leading features of the resources of this State, and that the Secretary be directed to ascertain from Mr. Parker what number of copies he can furnish the Board of the first edition, and to secure at once at least one thousand copies, if the same can be done at reasonable terms.

On motion of Mr. Souper, a bill of the *Revue de l'Ouest* ($65 00), for printing the Governor's message in French, and for gratuitous distribution in France, Canada and the French portion of Switzerland, was allowed.

On motion, the Board then adjourned until the next regular meeting, unless sooner called by the President for special business.

ISIDOR BUSH, *Secretary*.

[At the close of the meeting a deputation from the Agricultural Society appeared before the Board to communicate on matters of general interest].

Approved:

THOS. C. FLETCHER, *President*.

SPECIAL MEETING OF THE BOARD OF IMMIGRATION.

A special meeting of the Board was convened at Hermann, Missouri, on Saturday, the 27th of May, 1865.

Present, all the members of the Board.

Gov. Thomas C. Fletcher, the President, presided. The reading of the minutes of the last regular meeting was dispensed with.

The President reported that Mr. Souper had given bond as Treasurer with ample security, and that the bond was filed with the Secretary of State, in accordance to law.

He further reported that he had appointed Mr. John Bittman as special agent of the State Board of Immigration for the solicitation of subscriptions, etc.

Mr. Bittman was introduced and authorized to be present at the meetings of the Board.

An address to the people of Missouri, prepared by the President, in compliance with a previous resolution, was presented to the Board.

ADDRESS OF THE MISSOURI STATE BOARD OF IMMIGRATION TO THE PEOPLE OF MISSOURI.

Returning peace brings to our country a restoration of order, and to our State a resumption of the acts of industry and a reinstatement of our former prosperity. A feeling of confidence and security, prompted by the newly awakened spirit of obedience to law, is daily manifesting itself throughout the State. While trade is once more seeking its old accustomed channels, the citizen soldiers are returning home to resume those industrial occupations which they left to defend the flag of their country.

The duty of every citizen of Missouri, at this time, is to devote all his energies to the development of the material resources of the State, and especially to the inducing of the settlement of our

vacant lands by the hardy and industrious people of the older States of the East, or of the countries of the Old World; so that Missouri may regain what she has lost in the race of improvement with her neighboring free sister States during four years of desolating war.

Our soil, fertile everywhere, and adapted to the cultivation of the cereals of the world, as well as hemp, flax, tobacco, grapes and other staple products; our climate, mild and salubrious; our mineral resources, wondrously varied and inexhaustible; our water courses, superior to those of any State in the West; our great wealth of timber of the most valuable kind—all these attractions, possessed by Missouri, should be held up, exposed and illustrated to those contemplating the seeking of new homes in Western America.

To facilitate the performance of this imperative duty, the last Legislature of Missouri incorporated a State Board of Immigration, which has been organized, and is now diligently laboring to effect he objects contemplated in its creation. Agents are busily employed in disseminating the information we are able to furnish them. Arrangements have been made with the railroads leading to the State for half-fare tickets and other facilities for immigrants and those coming on prospecting tours.

Satisfied of the adaptability of our organization to bring us the population and wealth of which our State is so much in need, we are induced to make this appeal to all citizens of Missouri to aid us in our labors. We ask the people of every county, every township and every neighborhood to organize auxiliary boards or adopt such other means as will put us in possession of all the facts pertaining to their respective localities which may be calculated to invite immigration. We will thus be enabled to aid them in filling up their vacant lands, or in sending them good, law-abiding, loyal and energetic residents to purchase the farms and take the place of the disloyal, the dangerous or the useless portion of the pupulation, and to help improve the country, contribute to the payment of our taxes, and augment the general prosperity.

The united action of all the people of the State is essential to the success of the undertaking in which we are embarked. Heretofore other States have adopted similar measures to those we propose, and have therefore been able to divert from us the tide of immigration that has ever been flowing westward. Missouri needs to be known to be populated.

In addition to the assistance above solicited, we will require funds to defray unavoidable expenses. The State has given us, by act of incorporation, four thousand dollars. The sum will not enable us to carry a description of the natural beauty and wealth of Missouri as we desire, and is essential to all parts of the loyal States of America and over the whole of Europe.

We earnestly appeal to our mercantile houses, our commercial and monetary institutions, our manufactures, our railroad companies and other corporations, and our leading capitalists, to come forward and aid this great enterprise by liberal donations—donations—donations which will return many fold every dollar invested. We have appointed agents to solicit and receive subscriptions from those who are to be most benefited by the immigration to be brought to our State. They will call, duly accredited, on all the leading business men and corporations of our commercial metropolis, and on those in our smaller cities, and every part of the State will be visited for the purpose of giving the citizens opportunities of contributing to this most laudable object.

PEOPLE OF FREE MISSOURI! We ask you to assist us with no stinted proffers in our work, and we pledge you that our noble State shall soon double her population, and, ere the next national census shall be taken, rank as the first State west of the Alleghanies.

THOS. C. FLETCHER, *President.*
FRANCIS RODMAN, *Vice President.*
ISIDOR BUSH, *Secretary.*
THOS. E. SOUPER, *Treasurer.*
FRED'K MUENCH, *German Correspondent.*

Mr. Souper offered the following:

Resolved, That the address now read be adopted and forthwith published in the daily papers, and that 8,000 copies, in circular form, be printed in English, and 2,000 copies in German.

Mr Muench having kindly offered to prepare at once a German translation of said address, the resolution was adopted.

Mr. Rodman set forth the importance of obtaining liberal contributions in behalf of this object of the Board, and moved that the president appoint two members of the Board as a committee to draw up instructions for our special agent, Mr. Bittman, in soliciting and collecting subscriptions and endowments of money, real estate, and other property; said committee to report on Monday morning.

The motion being agreed to, the President appointed Messrs. Rodman and Bush said committee

The President also suggested a plan of creating honorary memberships of the Board of Immigration, which should be a matter of consideration for the members of the Board, so as to determine on the practicability and details of the same at next regular meeting.

The Secretary, Mr. Bush, reported that, on recommendation of the President and Vice President, and on consultation with Mr. Souper, he had secured the services of Rev. H. O. Sheldon, of Ohio, to travel in the eastern States and to be active in the promotion of immigration, without any salary or compensation, except a voluntary contribution toward his expenses, at the option of the Board.

On motion, the sum of one hundred dollars was appropriated for this purpose.

On motion, the Secretary was authorized to secure in a similar manner the services of Rev. —. Willis, of Hannibal, Missouri, and a like amount was appropriated for this purpose.

Letters of these gentlemen, also of Hon. W. Hunter, acting Secretary of the Department of State, at Washington, of the United States Superintendent of Immigration at New York, and of many others on the subject of immigration and agencies for its promotion, were read by the Secretary. These communications elicited some discussion; and on motion, it was

Resolved, That the Secretary be required to ask from the various railroads in this State, and especially from the Pacific Railroad Company, the privilege of a free pass for the use of members

and the special agent of this Board; also the granting of the usual facility of half-fare for emigrants and viewers, supplied with certificates from the authorized members of this Board.

Mr. Bush reported that the Missouri Hand-book and Geological Map, by Mr. N. H. Parker, had been issued but a few days ago, and as the book and the terms offered were not, in his opinion, what the Board had expected, he asked for instructions as to the number of copies to be purchased at the terms expressed in the letters of Mr. Parker and Mr. Pinckard; whereupon, Mr. Rodman offered the following:

Resolved, That the resolution passed at the previous meeting in regard to this subject, is hereby amended by striking out the words "one thousand copies," and inserting in lieu thereof the words "copies to the sum of four hundred dollars," which sum had been advanced to Mr. Parker for the purpose of aiding him in the earlier publication of the same.

This resolution was adopted.

Several gentlemen, invited by the President and members of the Board, were present, and on motion of Mr. Rodman, it was

Resolved, That when this Board does adjourn it will be until Monday morning at nine o'clock, and that all the gentlemen present be allowed and respectfully requested to use the privilege of the floor and take part in the discussion of questions brought before the Board.

The following gentlemen were present by special invitation: Gen M. Miller, Emil Pretorius, Dr. Phil. Weigel, W. C. Lange, Judge Arnold Krekel, Daniel Hertle, from Chicago, Hon. Gert. Goebel, from Franklin, Mr. Barr, from St. Joseph, Missouri. Hon. George Husmann.

A book just issued, written by Mr. D. Hertle, was presented to the Board and very favorably spoken of.

Mr. Bush moved that three hundred copies of the work entitled The Germans in North America and Struggle of Freedom in Missouri, containing an article on the Resources of this State and the Regeneration of Missouri by Immigration, be purchased by this Board, for the present, to be distributed in some of the Eastern States and in Germany.

Mr. F. Rodman moved to amend by striking out "three hundred," and inserting "five hundred copies;" which amendment was agreed to, and the resolution, as amended, was adopted.

Mr. Muench reported, that in compliance with a resolution passed by the Board during the last meeting, he had written a German commentary to the Governor's message, which is now printed; and as it was published in the Westliche Post, it was probably known to most of the members; whereupon.

Mr. Rodman offered the following resolution, which was unanimously adopted.

Resolved, That the thanks of the Board are due to the Hon. F. Muench, German correspondent, for his able and instructive introductory remarks to the inaugural address of his excellency Governor T. C. Fletcher, which are eminently qualified, in connection with the message, for distribution in Europe, where they cannot fail to be productive of good to the cause of immigration to our State.

Mr. W. C. Lange, one of the guests present, offered his services to send said pamphlet and other publications, as the Board may desire, to Germany free of charge.

The subject of making arrangements to secure the services of agents at Bremen and New York was discussed; but without adopting any definite measure in regard to this matter, the Board adjourned to Monday, May 29, 1865, at nine o'clock A. M.

Board convened at same place, Hon. F. Rodman, Vice President, in the absence of Governor Fletcher, the President, presiding.

The report of the committee appointed to define the duties of the special agent was read by Mr. Bush.

On motion, the report was received and adopted.

The following is an abstract therefrom:

DUTIES OF THE SPECIAL AGENT.

The present and prospective duties to be performed by the special agent, Mr. John Bittman, are the following:

1. The solicitation of subscriptions and donations in moneys, lands, agricultural implements and other articles, to the funds and for the purposes of this Board.

2. The solicitation of honorary memberships and other active co-operation with this Board.

3. The appointment of sub-agents for the purposes above mentioned.

4. The keeping of an account of all contributions received, and of all fees of membership obtained; to deliver the same to the Treasurer, and report to the Secretary of the Board.

5. A general co-operation with the Board and its officers.

6. The correspondence with and the writing of articles for the leading papers East and West, for the purpose of eliciting aid to the cause.

The title of office to be Special Agent for the Promotion of Immigration.

The consideration of the subject of securing agents was resumed; and, on motion, the following resolutions were adopted:

Resolved, That Hon. F. Muench is hereby requested and authorized to engage the services of an efficient agent for the promotion of emigration to this State at Bremen, Germany.

And further resolved, That Hon. I. Bush is authorized to engage the services of an efficient agent at New York city for the same purpose.

Mr. Souper reported that he had withdrawn from his former position as Secretary of the Excelsior Insurance Company, and having been appointed General Agent of the American Emigrant Company for Missouri, will now devote his whole time to the interest of immigration; that he has rented two office rooms in the new Democrat building at St. Louis, one of which is intended for the exclusive use of the State Board of Immigration.

Mr. Rodman offered the following resolution, which was agreed to:

Resolved, That the action of Thomas E. Souper, Esq., in renting an office for the transaction of business of the Board of Immigration, situate on the corner of Pine and Fourth streets, at St. Louis, is hereby consented to and ratified by this Board.

Mr. Souper moved that books of subscription to the funds of the Board of Immigration be opened and laid up at the various banks and institutions, proposing, also, an advertisement to that effect; which matter was referred to the Special Agent in conjunction with the Secretary and Treasurer.

Mr. Rodman moved that in consideration of accumulating business of the Board of Immigration, the Secretary is authorized to engage the services of a clerk, whose duties shall be defined by the Secretary; which was agreed to.

Mr. Bush, as President of the German Emigrant Aid Society, a corporation since many years disinterestedly devoted to the relief of poor emigrants, asked the privilege of using the office of the State Board of Immigration for the board of directors of that benevolent institution and its agents; which was unanimously granted.

The Hon. George Husmann offered, as a donation, several hundred copies of his Essays on Grape Culture, also his co-operation with the Board in behalf of immigration, without any compensation, in such manner as may be designated by the Board, and as best he could; which was thankfully accepted, the Vice President expressing on behalf of the members of the Board their appreciation of his many and efficient services rendered to their noble cause.

Mr. Rodman offered the following resolution:

Resolved, That the thanks of the Board of Immigration are eminently due to Thos. E. Souper, Esq., for the services he has rendered the Board during its recess; and that the Board considers the coalition of the American Emigrant Company with the business of the Board as a happy event.

Which resolution was agreed to.

Mr. Husmann thanked the Board, in the name of the citizens of Hermann, for having conferred on them the honor of this visit and of holding their meeting at this place; which was responded to by the Vice President, and on motion, the Board adjourned.

Approved:

ISIDOR BUSH, *Secretary.*

THO. C. FLETCHER, *President.*

THIRD MEETING.

The board met pursuant to adjournment at Muench's farm, on Lake Creek, Warren county, Missouri, on the 14th of July, 1865.

Present—Governor Thos. C. Fletcher, President; F. Rodman, Secretary of State, Vice President; Hon. F. Muench, Corresponding Secretary; Thos. Souper, Esq., Treasurer; Isidor Bush, Secretary. As invited guests, Messrs. M. Poeschel, F. Rommel and George Husmann, from Hermann, Missouri; Dr. Morse, from Kirkwood, Missouri; Rev. M. W. Willis, of Quincy, Illinois; also, Mr. John Bittman, Special Agent.

The minutes of previous meeting were read and approved.

Mr. Muench presented the following report respecting the appointment of an agent at Bremen, Germany, as he had been instructed by resolution of this Board, stating that he had appointed Mr. H. M. Hauschild, editor of the German Emigration Gazette, as such agent, and the instructions given to him:

REPORT CONCERNING AGENCY AT BREMEN.

Pursuant to a resolution adopted at the last session of this Board, the undersigned has engaged Mr. H. M. Hauschild, at Bremen, to act as the agent of the Missouri State Board of Immigration.

Mr. Hauschild has lived several years in America (in Toledo, Ohio), is at present the editor of the German Emigration Gazette, well qualified, trustworthy and diligent, and has already made himself well deserved of the cause of immigration to the United States, and chiefly to Missouri. I know him personally and have been in constant connection with him and his paper the last six years.

The instructions given him are as follows:

1. To publish in his paper all the communications sent him by our Board for that purpose; in other words to make his Gazette the organ of our Board for Germany. I generally send him two or more articles every month.

2. To forward three copies of his paper to our Board—one to St. Louis, one to Jefferson City, and one to my own address.

3. To send, free of cost, copies of his paper to the emigration agents throughout Germany and the German portions of Switzerland, as also to such persons as are known to influence and direct emigration.

4. To send this Board one copy of the other German Emigration Gazette, published at Rudolstadt, and such other papers and pamphlets as may have reference to the emigration question, and may require our taking notice of them.

5. To distribute, according to instruction, pamphlets and books forwarded to him for that purpose; more particularly to put such books and pamphlets into the hands of emigrants on their arrival at Bremen.

6. To execute such other commissions as the Board thinks proper to intrust to him. He is to send in, semi-annually, his account for money laid out and services rendered, and this Board will forthwith indemnify him. The Board may at any time change or repeal these instructions.

On motion, the report was received, the appointment made, confirmed, and the instructions approved.

Mr. Souper also read the following report on the working of the Board through its office since the last meeting:

"The proceedings of the special and adjourned meetings held at Hermann, on the 27th and 29th days of May, were fully reported in the daily English and German papers of St. Louis, on the 7th of June, together with the address of the President, and about seventy copies were mailed to the East and Europe; these reports have also been reproduced by some of the New York press, and in the counties.

"Since the date of our last meeting we have been fully occupied in perfecting our organization and getting into working order.

"The 10,000 copies of the address which were ordered, have been printed at the office of the Westliche Post, and are in course of distribution.

"A slight difficulty has arisen with Mr. Pinckard, the publisher, who insists, on behalf of Mr. Parker, that we are bound by our original agreement to take 1,000 copies.

"The establishment of our office and the circulation of our address, our advertisements and the favorable notices of our organization by the press, not only of St. Louis and the counties, but especially of the East, have already drawn out a large correspondence, which, however, can only be regarded as a commencement, and it is fair to presume that we are now on the highway to realize our highest hopes.

"The members of the Board are cognizant of the organization of three auxiliaries, viz: At Mexico, Macon and St. Joseph; the two latter cities especially received your delegation in the most courteous manner, and have entered heartily upon their labors. It is worthy of remark that they regard the organization of the State Board as an affair of the greatest importance to the State."

Mr. Bush reported merely verbally about the appointment of an agent at New York, not having completed his arrangements as yet in this matter.

Mr. Muench presented a long and interesting report, from which the following is an extract:

"My correspondence and articles published by the German Emigration Gazette have aided in bringing about a complete revolution in the minds of the Germans concerning the localities to which emigration should be directed. The ideas of colonization in Brazil, in the Argentine Republic, etc., are being given up, and the United States considered as the country most suitable and recommendable for German emigrants. It is justly concluded that a country for whose defense hundreds and thousands of its adopted citizens cheerfully took up arms must be a desirable home for those dissatisfied with their condition in their native land. The same articles brought me in correspondence with Mr. John I. Sturz, of Berlin, Germany, general Consul of Brazil and Uraguay, a gentleman looked to as an authority in all matters pertaining to emigration, and who exercised more influence in directing German emigration latterly than any other man. Unfortunately, he entertained for a while a prejudice against the United States, and favored for a while, from honest conviction, German emigration to Brazil, and lent his powerful aid in establishing German colonies in several of the provinces of that vast empire, where enormous tracts of land were offered under the most alluring conditions for German colonization, while at the same time, in the United States, know-nothingism was flourishing. Finding, however, that the most important promises given to emigrants were not complied with, Mr. Sturz, disregarding his own interest, and his profitable connection with the Imperial Government, turned a denunciator of the Brazilian colonization schemes, and directed his attention to the beautiful regions on the mouth of the Uraguay river, the most favorable terms having been offered to German settlers by the liberal republican government. A comprehensive colonization scheme was about to be carried into execution, when the country was overrun with armed forces by the Brazilian government. This convinced Mr. Sturz that the time for German colonization in those regions had not yet arrived; and now, the latest events in these United States wrought a complete cure of his former prejudices against emigration to North America. He frankly confesses to me that I had been right in my communications, wherein I criticised said schemes and always tried to place our Union in the proper light before the German public. Mr. Sturz now even proposes to use all his influence as a writer and public lecturer to the promotion of German emigration to the United States, and chiefly to Missouri. From all I know, no man on the European continent can do more for our cause than Mr. Sturz. He has already entered into communication with the President, with Mr. Seward, Mr. Sumner, General Karl Schurz and other prominent men, and offers his services to our State Board of Immigration.

"I would propose that this Board accept the services of Mr. Sturz. I think the time has come when, by proper exertions, for years to come, annually, half a million of Germans—the annual natural surplus of population there—can be determined to seek a new home in the United States, of which Missouri will receive her due share—all other emigration schemes being thereby wholly defeated. By spending a few thousand dollars in the right way, Missouri may gain 50,000 valuable hands, together with millions of imported capital.

After discussion of the matter contained in this report, it was, on motion,

Resolved, That Mr Muench is authorized to accept the services of Mr. Sturz, in Berlin, as a co-operator in behalf of emigration to Missouri, promising to remunerate him in proportion to the results, and at the option of the Board, according to its means.

The President reported that he had honored with appointments as agents of this Board, the Rev. Mr. M. W. Willis, of Quincy, Illinois, and Mr. J. Moore, of Kansas City, to assist in the work of promoting emigration to Missouri.

The subject of honorary memberships was discussed, and referred to a committee, consisting of the Secretary, the Treasurer and the special agent.

The organization of auxiliary boards, the establishment of which, in almost every town, should be encouraged by the Board, was the next subject of discussion, and from the correspondence laying before the Board, it was evident that a laudable interest was evinced in this important matter from various portions of the State.

Mr. Bush reported the result of his inquiries about the American Emigrant Company at New York, made in pursuance of a resolution of this Board, for which purpose he had made careful inquiries at that place, and had the pleasure to receive the kindest aid and attentions by the officers

of the New York State Commissioners of Immigration, the United States Superintendent of Immigration, and the President and Agent of the New York German Emigrant Aid Society; he said the American Emigrant Company was an enterprise set in operation and conducted by very able and enterprising business men; it was not and did not pretend to be a purely philanthrophic or benevolent association, but rather an employment office on a very large scale, with agencies in most of the States of Europe and of this country, operating with a large capital, and expecting profits or dividends on its investment. It views the laboring man as a costly engine of which there is an abundance in the markets of Europe and a scarcity in this country, and which it undertakes to import to order, or to obtain for its customers from those arriving at New York. While it is but natural that such a company is looked upon with a certain diffidence or even suspicion, he takes pleasure in stating that the very best interest of their business and the respectability of its members and officers, guarantee an honorable and useful agency on its part in the cause of immigration. They charge the employers only, not the immigrant, and operate in a measure as a protection to the latter; moreover, the general agent, Mr. Williams, had given satisfactory assurances as to the conduct of that business, so that it should in no wise conflict with the interests of Missouri or the philanthropic objects of this State Board of Immigration; but with all this, Mr. Bush thought this Board should keep a vigilant eye on the American Emigrant Company and not allow itself to be considered as identified with it.

Mr. Souper regretted that Mr. Bush seemed to entertain from the beginning a certain distrust toward this most respectable company, and regarded it as a want of confidence in himself, who was its agent.

Mr. Bush disclaimed all and even the remotest idea of an unfriendly feeling, but, on the contrary, entertained the highest esteem and confidence for Mr. Souper as a gentleman and officer of the Board, and that he believed even to have expressed confidence in the American Emigrant Company and its agents; but this could not hinder him from expressing his views on the position which this Board should occupy in relation to any such company, under all and even the most favorable circumstances.

The Board then took a recess, in order to view the vine-clad hills and to enjoy the hospitalities of their esteemed host, Mr. Muench, to meet again for business on next morning.

On the re-assembling of the Board, all the members being present, many communications, applications for appointment as agents, and other letters were read, considered and disposed of, being referred to the Secretary with instructions.

On motion of Mr. Souper, and by request of the Board, Rev. M. W. Willis addressed the same in a very able manner, on the mode and manner in which he intended to operate to influence emigration and to spread information about this State.

The organization of auxiliary boards received again the consideration of the Board, and the Governor was requested to give to this subject his special attention, and to address influential citizens in various sections for the purpose.

During the session of the Board, a delegation of citizens from Augusta called on the Governor, inviting him to their flourishing place. But his other engagements preventing an immediate acceptance of the invitation, Governor Fletcher offered the following resolution:

Resolved, That this Board now adjourn until its next regular meeting, to be held on Monday, the 25th of September next, at Augusta, Missouri.

Which was adopted unanimously, and the Board adjourned.

Approved:

THO. C. FLETCHER, *President.*

ISIDOR BUSH, *Secretary.*

FOURTH MEETING.

The quarterly meeting of the Board was held pursuant to adjournment at Augusta, St. Charles county, Missouri, on the 25th of September, to which place the loyal citizens of Augusta had invited the Governor and the whole Board, and had entertained them on the preceding day in a most cordial and liberal manner.

Present—Governor Thomas C. Fletcher, President; Hon. Francis Rodman, Secretary of State, Vice President; Senator Fred. Muench, German Corresponding Secretary, and Hon. Isodor Bush, Recording and Corresponding Secretary; also, Mr. Bittman, Special Agent, and several distinguished guests.

Absent—Thos. E. Souper, Esq., Treasurer, who has been prevented by sickness from attending.

The minutes of the previous meeting of the Board were read and approved.

Mr. Muench read the following report:

REPORT TO THE STATE BOARD OF IMMIGRATION.

Since the last session of our Board, I was incessantly occupied in answering numerous letters, in writing correspondences for German papers in the old country, and in rewriting my book on the State of Missouri, the title of which will be The State of Missouri: a Hand-book for German Emigrants. It will contain, in a condensed form, considerably more and at the same time more authentic information on our State, her vast resources and the advantages offered to immigrants, than Mr. Parker's book. The circulation of this book over all parts of Germany I still consider as the surest

and most effective means of giving Missouri a good supply of German agriculturists, fruit and vine raisers, mechanics, etc., etc.

Mr. Hauschild at Bremen has received and accepted his commission as agent of this Board, and will be prompt in accomplishing his new duties. In his last letter he gives me the following important information: The thronging to the ocean steamers is so immense that the freighters have thought fit to raise the fare to a price which the less wealthy portion of the emigrants are unwilling to pay; these, then, chiefly emigrants to Missouri, wait for the reopening of the navigation to New Orleans, which is a cheaper and—chiefly for those with families and baggage—a more convenient way to come over to our State; thousands are preparing themselves to sail to New Orleans next spring, and thence go further up the Mississippi; they will not go past St. Louis, as immigrants used to do while Missouri was under the control of slave-breeders. Mr. Hauschild wishes that one of the German St. Louis papers be regularly sent to him to keep himself well posted on everything going on in Missouri.

I have also received several letters from Mr. Sturz at Berlin, in reply to my own, and accompanied with German papers containing interesting articles on the United States, and Missouri in particular. They show that the papers of a liberal dye take a great deal of interest in our affairs, that Missouri is well spoken of, and emigration to her borders encouraged.

Mr. Sturz tells me that he is a poor man with a large family (the same is very often the case with German scholars); that he would very gladly devote his whole time and energy, all his influence and extensive connection to our cause; but could do it on no other conditions than that he should obtain from our Board a fixed employment for three years with an annual salary of three thousand dollars in silver, to be prepaid quarterly; that traveling over all parts of the country, advertising in all the most influential papers, etc., would cause a considerable amount of expenses, etc. He adds, that if our Board could not or would not expend that much, we might unite with several others of our Western States, also desirous of immigration, and that he would try to do equal justice to and equally benefit them all. I would not object to such an arrangement, but do not see how it may be brought about.

Mr. Frederick Kapp, of New York, the well known lawyer and celebrated author, also writes to me that he is personally acquainted with Mr. Sturz, knows him as a man of unblemished integrity and rare diligence and energy; that Mr. Sturz is generally more trusted in the emigration question in Germany and exercises a greater influence than any other man; that he would do for our cause more than any ten others combined, etc. Yet I do not see that we can accede to the conditions of Mr. Sturz, not knowing the amount of means left at our disposal.

I shall do my best to have the manuscript of my book ready for print before the next session of our Legislature begins. I propose that it should be printed in Germany, ten thousand copies of it, and be distributed by our Bremen agent, he being empowered to employ sub-agents, and that —— thousand dollars be appropriated for that purpose. I have great confidence in the efficacy of this plan. Lectures may incite for the moment, but a full information in print, read and re-read, of what Missouri is and offers, will operate as a more lasting inducement for just the most desirable class of emigrants.

With reference to what is said about New Orleans, it would be a good plan to have an agent there or at least to enter into a closer connection with the New Orleans German Society, provided that the same is yet in existence.

FREDERICK MUENCH.

After urging Mr. Muench to finish his book as proposed, the necessary appropriation for the publication of the same was deferred to the next meeting of the Board.

The President, Governor Fletcher, then laid before the Board the following condensed statement of the cash account, sent to him by Mr. Souper:

THOS. E. SOUPER, TREASURER OF STATE BOARD OF IMMIGRATION—CASH ACCOUNT.

DR.		CR.	
To cash per State Auditor	$1000 00	By cash paid for publications, circulars and printing	$1307 40
Cash per State Auditor	996 00	Advertising	266 00
Cash exchange and express	4 00	Agents	329 00
Cash per Auditor	1000 00	Wages, freight, packages, postages, exchange, telegrams	347 45
Sundry collections by myself	205 00	Rent	87 50
	$3205 00	Funiture	*315 00
		Balance on hand	552 65
			$3205 00

* Of this sum is $74 30 traveling and other expenses copied in error from rough memorandum, so that sum will read $240 70.

THOMAS E. SOUPER.

ST. LOUIS, September 18, 1865.

In thus referring it to the Board, the Governor suggested that no moneys should be disbursed without the approval of the bill for every expenditure by the Board, and that the duties of the officers should be clearly defined; that the Treasurer's duties are only to receive and pay out money, and that he is only authorized to pay out money on a warrant or order signed by the President and Secretary, by order of the Board. The Auditor of Public Accounts is only authorized to pay appropriation for the State Board of Immigration on the written application of the President of the Board.

The following resolutions were then introduced and adopted:

Resolved, That the Treasurer is required to furnish the Board the bills and items for all expenditures reported by him, for the action of the Board at the next regular meeting.

And be it further resolved, That hereafter the duties of the Secretary shall be to receive and answer all correspondence addressed to the Board; to keep a record of the proceedings of the Board; to prepare and to publish, by direction of the Board, all circulars and all other official papers of the Board. He shall prepare, countersign and register all orders or warrants drawn by direction of the Board and signed by the President, and shall perform such other duties as may hereafter be directed by the Board.

2. The Treasurer shall receive and receipt for all moneys of the Board directed by the Board to be paid to him, and shall pay out the same on the warrant or order of the Board, signed by the President and attested by the Secretary; and all other acts of the Treasurer in the name of the Board, not specially directed, are unauthorized.

3. That all books and papers not strictly and legally belonging exclusively to the duties of any other officer of the Board, be deposited in the Secretary's office.

The following report of Mr. Wm. C. Lange was then read:

To the President and members of the State Board of Immigration:

GENTLEMEN: At the meeting of your Board at Hermann in May last, I tendered my services for the distribution in Germany of Mr. Daniel Hertle's book, entitled The Germans in North America and the War in Missouri. Three hundred copies of this book were delivered to me by your agent, Mr. J. Bittman, and immediately forwarded to Bremen for distribution.

My expenses were considerably reduced by the liberality of the American Express Company carrying the box containing these books to New York without charge, and the North German Lloyd carrying it to Bremen on the same terms.

The postage and other expense connected with the circulation of these books, at Bremen and other places, amounted to about forty-three Bremen gold thalers, or about $53 of our currency, which amount you will please accept as my contribution to the cause of immigration.

Hertle's book was sent entirely prepaid to every address that was left with me, as well as the Governor's inaugural message, with the appendix of Hon. Frederick Muench; of the latter pamphlets, however, a considerable number remain yet on hand, having received them myself only very recently.

Presuming that it may be of some interest to you, I herewith give a statement of the number of passengers transported by me during the last twelve months.

Considering that my dealings are only with those immigrants whose friends here pay the passage-money for them, that the war lasted during two-thirds of this period, that nearly all these immigrants are to remain in this city and its immediate neighborhood, and that every person so booked and bound for St. Louis induces two or three others to settle likewise in Missouri, you will find my report satisfactory.

I may here add that during the first six months of the present year 18,700 emigrants left Bremen, in fifty-six vessels, being an increase of 3,037 emigrants from the port of Bremen alone in this year over the same period of the previous year, during which only 15,663 sailed from Bremen. During the same period of this year 15,609 sailed from Hamburg, which is doubtless also an increase over the year 1864.

The German emigration being always larger in the fall season, and on account of the termination of the war, we expect a very large immigration in this and the next two months, of which Missouri will doubtless get her full share.

Mr. Hermann Ruppel, who has been traveling this summer in Germany at his own expense, and whom you had honored with a commission as agent of your Board, a few days ago returned to this city. Being too busy at present to report himself, he desires me to state that he has been most successful, and that he might have brought along any number of his countrymen if they could have been accommodated on the steamer on which he sailed. He reports the berths in all the German steamers engaged two months in advance.

The immigrants arriving here, with but few exceptions, complain of the manner in which they, or rather their baggage, is treated on the way from New York here. As you know, the baggage of first-class passengers is checked through at New York to St. Louis; that of emigrants is only checked to some way point, say Pittsburg, Buffalo or Dunkirk, where they are required to recheck to St. Louis or some other way point, which these people, ignorant of the management of our railroads, ignorant of our language, do not understand or for which they do not find sufficient time, and the consequence is that many a piece of (often valuable) baggage is lost or only recovered at a heavy expense. Besides this malpractice, the railroads leading west from New York allow emigrant passagers fifty pounds of baggage, and collect express rates to St. Louis for the excess. They, however, do not allow the western roads their share of the sum so collected; in consequence of which the western roads, receiving hardly one cent a mile for the transportation of emigrants, collect again for excess of baggage, so that the emigrant is compelled to pay twice for the same thing.

Having reported these abuses to the proper parties at New York repeatedly, without any result, however, I would most respectfully ask you to use your influence to have them abated.

Hoping that I may be able to report next year another increase of immigration, I remain, very respectfully, yours,

WILLIAM C. LANGE.

Statement of emigrant passengers transported by William C. Lange for account of friends in St. Louis, Missouri, from September 1, 1864, to August 31, 1865.

	Families.	Persons.	Am't of pass. money.
From Bremen or Hamburg to New York by sail	218	264	$25,332 75
From Bremen or Hamburg to New York by steam		201	
From New York to St. Louis by railroad.....	330	586	$12,118 90
During same period passengers were booked from:			
St. Louis via New York to Bremen and Hamburg by steamers.....	217	318	$21,303 95

Who will, with hardly an exception, act as agents for the inducement of immigration to Missouri.

Mr. Bittman presented a detailed report of his operations as special agent. He had to contend with great difficulties, considering which he thought the result was satisfactory, though he confessed that he had overrated in his expectations the liberality of moneyed institutions generally. Since he had commenced soliciting subscriptions, lists for a great number of purposes, charitable, political and personal in their nature, have been in circulation, so that the citizens of St. Louis were taxed continually. There was no doubt, however, that the County Court of the county of St. Louis, as also the city council, would make a liberal appropriation to foster the purposes of this Board. Many corporations and individuals held the matter yet under consideration, and he had full confidence in his ability to raise ample means to defray the necessary expenses of the Board for the next four years, and that he, for himself, would be satisfied with a small per centage on his collections as a salary. The arrangement with most of the subscribers so far has been to pay only when the receipts and diploma will be presented.

On motion, it was

Resolved, 1. That Mr. John Bittman, special agent of the State Board of Immigration, be allowed as compensation for his services as special agent fifteen per cent. of the amount of donations and contributions by him collected, in lieu of a fixed salary.

2. That he be required to give bond in the sum of five thousand dollars, the bond to be approved by the Governor, and deposited in the office of the Secretary of State.

3. The special agent, Mr. Bittman, is to report at the end of every month to the Secretary the amount so collected and received for the Immigration Fund, and to pay over to the Treasurer such amount, deducting the above per centage for his collection.

A proof sheet of the diploma of honorary membership, and a communication of Messrs. Gast, Moeller & Co. about the cost of same, was laid before the Board and referred to the committee appointed for this purpose.

Mr. Bush made a report, in which he stated that over two hundred letters, from nearly all the States of the Union and from Europe, inquiring about Missouri, were received and answered by him during the last three months, and that daily many persons, especially emigrants from Germany, called at the office for information, and also for aid and employment by the German Emigrant Aid Society. He had endeavored to obtain more detailed and special information from various sections, and had for the purpose addressed a circular to the county clerks and to many prominent persons, but had been superseded in this as also in other endeavors. He had furthermore directed a letter to the various railroads presidents, with a view to obtain the favor of half fare for persons emigrating to Missouri, but owing to peculiar circumstances he could not report, as yet, a very favorable result. The great benefit to be derived from immigration, and the fact that it could and should be earnestly promoted, is not yet fully understood and appreciated among our own people and institutions. While the Rev. Mr. Sheldon obtained from the Great Erie, the Atlantic and Great Western, and many other roads, the reduction asked for our immigrants, our own Pacific railroad, which, by every new settler on her line, would increase her annual earnings, more than compensating for all such reductions, the Pacific railroad still hesitates. The North Missouri and Iron Mountain railroads, however, have readily honored our certificates for half fare, and the Hannibal and St. Joseph railway refunded the entire fare to those purchasing land for settlement on their line. The latter have also made a most liberal appropriation for the Rev. M. W. Willis, agent of this Board, to induce immigration to Missouri, whose lectures in the New England States and whose articles in the press have attracted great attention, and promise to be very effective.

Mr. Bush also reported that the Board of Commissioners of the Mullanphy Emigrant Relief Fund had passed a resolution (on May 9th) instructing the Secretary to rent the office adjoining their own office to the State Board of Immigration, at ten dollars per month, with the privilege of using also their own office for the stated meeting of this Board, but this resolution (though published at the time in their proceedings) had not been communicated to him until a few days ago. He asked for instructions of the Board in regard to this matter.

On motion of Mr. Rodman, this proposition was accepted, and the Secretary, Mr. Bush, instructed to rent the same for the Board.

Governor Fletcher offered the following resolution, which was adopted:

Resolved, That the thanks of this Board be and hereby are presented to those railroads who have transported immigrants at commutation rates upon the certificate of our Secretary and of our agents.

Several bills for expenses were approved and ordered for payment. Applications for appointments as agents were received, but action on the same was postponed. Rev. H. O. Sheldon, however, was continued as immigration agent, and the further sum of fifty dollars appropriated for his expenses.

Resolutions were passed declaring Mr. William C. Lange, of St. Louis, also Mr. George Husmann, of Gasconade, in consideration of their valuable services and liberal donations to the Board, honorary members of the same. The Board adjourned to meet on the first Monday in December next, at St. Louis.

Approved: THO. C. FLETCHER, *President*.

ISIDOR BUSH, *Secretary*.

SPECIAL MEETING OF THE MISSOURI STATE BOARD OF IMMIGRATION.

JEFFERSON CITY, MISSOURI, November 2, 1865.

Pursuant to a call of the Governor, as President of the Board, a special meeting was held this evening at the Executive Mansion.

Present—Governor Thomas C. Fletcher, President; Francis Rodman, Vice President; Isidor Bush, Secretary; Frederick Muench, Corresponding Secretary.

The Governor laid before the Board the following letter of resignation received from Mr. Thomas E. Souper:

ST. LOUIS, October 5, 1865.

His excellency, Governor Thomas C. Fletcher, President of State Board of Immigration:

SIR: It is impossible for me to harmonize with the majority of the present Board, and having been obstructed in all my efforts to promote the great objects of the Legislature in the creation of this Board, I hereby respectfully tender my resignation. I ask you to appoint three citizen merchants to examine my accounts and accept, on your behalf, the balance of cash on hand.

The cause of immigration will suffer nothing by this change, as I shall have nothing to embarrass my future action.

Unless a clearer statement of the transactions of the special agent is published by the Board, it will be my duty to do so.

When so many reports were submitted at the August meeting, and since expatiated upon so largely, I respectfully submit whether it was not due to the public as well as myself that some notice might have been taken of my official report to you.

I have the honor to be, sir, your most obedient,

THOMAS E. SOUPER.

His resignation was accepted, and, on motion of Mr. Muench, seconded by all other members present, Mr. Amade Valle was elected unanimously to fill said vacancy, and to act hereafter as Treasurer of the Board.

Senator Muench was requested to introduce, in the General Assembly, an act explanatory of the act creating this Board, so that nothing therein contained should be so construed as to prevent meetings of the Board to be held at other places than St. Louis; also to make the appropriation of $4000 annually; and, finally, not to exclude the granting of honorary membership.

On motion of Governor Fletcher, Professor Waterhouse was elected an honorary member; and, on motion of Mr. Bush, Mr. George Muench was also elected an honorary member for their eminent services in the cause of immigration to this State.

Several bills of expenses were approved and ordered for payment.

The board then adjourned to meet again at its next regular meeting according to law, unless sooner convened by the President.

Approved: THOS. C. FLETCHER, *President.*

ISIDOR BUSH, *Secretary.*

FOURTH QUARTERLY MEETING OF THE STATE BOARD OF IMMIGRATION

EXECUTIVE MANSION,
JEFFERSON CITY, December 4, 1865.

A majority of the members of the Board being unable to leave Jefferson City on account of their duties in the public service during the session of the Legislature, the Governor, as President of the Board, called the members together at Jefferson City.

Present—Governor Thos. C. Fletcher, President; Francis Rodman, Vice President; Senator F. Muench, German Corresponding Secretary; Amade Valle, Esq., Treasurer; Isidor Bush, Secretary; Rev. Martin W. Willis, Agent of the Board.

The minutes of the last regular meeting, held at Augusta, and of the special called meeting held on November 2, at Jefferson City, were read and approved,

Mr. Valle reported that, having received from the Secretary of this Board a letter informing him of his election as Treasurer, together with the commission as such from his excellency the Governor, he called on Mr. Souper, former Treasurer of this Board, with the order from the Governor to deliver to him the balance of cash, the books and papers belonging to the affairs of the Board. But Mr. Souper refused to recognize Mr. Valle as Treasurer or as member of the Board, and stated that he would, himself, hold on to his office until the next regular meeting of this Board, to be held on the 4th of December; further, that he, Mr. Souper, demanded the appointment of

three merchants of St. Louis, as a committee to examine his accounts. As Mr. Valle expressed the belief that he would, after this meeting, be able to obtain a proper settlement from Mr. Souper without further trouble, and as it was evident that, should this be not the case, there remained no remedy but to make Mr. Souper responsible under his bond, no further action was taken for the present in this matter.

Mr. Willis reported on his labors in the cause of immigration, to which he devoted himself exclusively; about his travels north and east; his lectures there; and about the circulars which he issued for the Hannibal and St. Joseph Railroad Company. He proposed and warmly recommended the publication of a similar circular about Missouri, under the auspices of this Board, either separately or in conjunction with the Hannibal and St. Joseph and the North Missouri railroads, but not devoted or partial to any locality.

Mr. Bush regarded the publication of such circulars, and of documents giving information about Missouri, for gratuitous distribution to those who daily demanded the same at his hands, as very essential; and the expense it would involve would probably be very trifling.

Mr. Muench reported that his German book on Missouri, which he had written at the request of this Board, was complete in manuscript, and its being for distribution in Germany, he had made inquiries about the cost of its publication and distribution in thousands of copies; whereupon Mr. Rodman offered the following resolution, which was adopted unanimously:

Resolved, That Hon. F. Muench is hereby authorized to have his book on Misouri printed for circulation in Europe (the first edition to be of such number of copies as he may deem prudent), and that he arrange for the cost thereof, and report the amount to this Board. And the President is directed to draw his warrant for this purpose for an amount not to exceed one thousand dollars.

Mr. Bush laid before the Board the following copy of his correspondence with the Commissioner of Emigration, Department of State, at Washington:

DEPARTMENT OF STATE,
WASHINGTON, May 9, 1865.

SIR: Your letter of the 6th ultimo, containing an offer to transmit to the Bureau of Immigration the reports and other records of the Board organized in conformity to the act passed by the Missouri Legislature, to encourage immigration to the State of Missouri, has been duly received.

This department will always gratefully receive communications which in any way might promote the subject of emigration.

I am, sir, your obedient servant,
W. HUNTER, *Acting Secretary.*

HON. ISIDOR BUSH,
Rec. and Cor. Secretary of the Board of Immigration, St. Louis, Mo.

DEPARTMENT OF STATE, BUREAU OF IMMIGRATION,
WASHINGTON, August 11, 1865.

SIR: Your letter of the 7th instant, inclosing the act of the Missouri Legislature establishing your Board, has been received at this office. This Bureau is also in receipt of a pamphlet in the German and one in the English language, which you had the kindness to transmit to it.

Please accept the thanks of this Bureau for these favors and for the information contained in your letter.

I am, sir, your obedient servant,
H. N. CONGAR, *Commissioner of Immigration.*

HON. ISIDOR BUSH,
Secretary of Board of Immigration, St. Louis, Mo.

DEPARTMENT OF STATE, BUREAU OF IMMIGRATION,
WASHINGTON, October 26, 1865.

SIR: The Bureau of Immigration is called upon by section six of the act creating it, to render to Congress an annual report of the immigration into this country.

In view of this fact, you would oblige this office greatly if you would furnish it with such general and statistical information in regard to the immigration into your State during the last year as may be within your reach.

I am, sir, your obedient servant,
E. P. JACOBSON, *for Commissioner.*

HON. ISIDOR BUSH,
Secretary of Board of Immigration, St. Louis, Mo.

DEPARTMENT OF STATE, BUREAU OF IMMIGRATION,
WASHINGTON, November 3, 1865.

SIR: Your letter of the 30th ultimo has been duly received, for which accept the thanks of this Bureau.

This office will thank you for any information which it is in your power to communicate to it prior to November 30.

I am, sir,
Your obedient servant,
E. P. JACOBSON,
For the Commissioner.

Hon. ISIDOR BUSH, *St. Louis, Mo.*

DEPARTMENT OF STATE, BUREAU OF IMMIGRATION,
WASHINGTON, November 27, 1865.

SIR: Your very interesting and valuable letter of the 22d instant has been duly received, and I thank you much for the information which you communicate.

This Bureau will take much pleasure in acting upon the suggestions advanced therein.

I am, sir, with great regard,
Your obedient servant,
E. P. JACOBSON,
For the Commissioner.

Hon. ISIDOR BUSH,
Secretary of Board of Immigration, St. Louis, Mo.

NOTE.—The answer will be found in the proceedings of the December meeting, 1865.

MISSOURI STATE BOARD OF IMMIGRATION,
ST. LOUIS, MO., November 22, 1865.

H. N. CONGAR, *Commissioner of Immigration,*
Bureau of Immigration, Washington, D. C.:

In compliance with your circular of September 1, and letter of October 26, I take pleasure to submit to you the following information respecting immigration into the State of Missouri. No State has probably suffered more than Missouri during the war Her hardy male population has furnished not only its full quota to the armies of the United States, but unfortunately also many thousands to the rebel cause under Price, Marmaduke, Shelby, Jeff. Thompson and many other prominent public men, who had joined them, and who induced our youth to follow their example. A still larger number, feeling their life and property insecure, and intimidated by acts of violence, left their homesteads for other States, so that many counties, especially in the southern part of the State, were fearfully depopulated. I inclose a paper from Southeast Missouri filled with advertisements of sheriff sales from beginning to end, which will give you a better idea of existing circumstances than any description would do Now, however, a train of returning people are moving into the State from the East, South, and even from the North. From some of the depopulated counties, it is true, many are moving away even now, or intend to leave as soon as they can sell their lands; having been used to cultivate them with slave labor only, and having lost their slaves, they feel themselves too lonesome, but by far larger numbers are coming in. There never was a people more earnest in inviting immigration than ours in every part of the State, and of all classes of immigrants Germans are most liked and coveted. Of unskilled laborers farm hands are most required. Missouri being, as yet, principally an agricultural tate. The wages in the country vary from $15 00 to $25 00 a month and board. In the neighborhood of St. Louis unskilled laborers employed on works of improvement, and on the various railroads, receive from $1 60 to $2 00 per day. All kinds of mechanics are very scarce, and command high wages—high even if the cost of subsistence and house rent is taken in full consideration.

Carpenters from $2 50 to $3 50; bricklayers from $3 50 to $4 00; blacksmiths from $2 50 to $3 00; tailors and shoemakers from $3 00 to $4 00; cabinet makers from $3 00 to $4 00, 10 hours work; miners from $2 50 to $4 00 (according to the distance and cost of living at the locality where they work.)

Machinists—finishers from $2 50 to $3 00; pattern-makers from $3 00 to $4 50; formers and moulders from $3 00 to $3 50, 10 hours work.

Gasfitters, locksmiths, brassfoundries and all jobbing, either in these or similar lines, pays at from $2 00 to $3 00, a day's work of 10 hours.

Printers and employes connected with the press, who have passed through a regular course of instruction in their particular branch, may count on at least $18 00 a week.

For artisans of the fine arts, as painters, sculptors, architects, chemists, jewelers, and for persons of the mercantile profession, it is not so easy to find employment as in Eastern States; but there is no doubt that with some means and proficiency in their respective vocation all can be sure of finding good openings and liberal encouragements to establish themselves.

We possess no means of obtaining correct statistical information as to the number of immigrants coming into this State. The many railroads leading into it keep no account thereof themselves, nor can they be induced to keep and furnish us any data in that respect. In vain have we applied, even to your Superintendent of Immigration in New York, to furnish us with monthly lists of those who report this State as their destination at Castle Garden. Recently, again, a large proportion of European emigrants come by way of New Orleans. To judge from the reports of our agents and correspondents, and from all other information we have been able to gather, we estimate the present weekly influx of population as an average, as follows:

1. Returning families, Union refugees and former rebels, about 200 persons.
2. Immigrants from other States of the Union, about 80 persons.
3. Immigrants from Europe, by way of New York and New Orleans, about 200 persons.

This estimate is very moderate, and will doubtless, in some seasons, be below the actual number. Whenever the great natural advantages of Missouri are brought in proper light before the people desiring to emigrate from Europe, or even from the northeastern States, their number, whatever it may be now, will be much increased. The farmers find here yet by far cheaper lands than in Illinois, of as excellent quality as any in Iowa or Wisconsin—but under a much milder climate, and within easy distance of, and near railroads communicating with, the great central market of this Union—St. Louis.

Stock raisers have not to contend with the cost and dangers resulting from the severe winters of the North, and besides, they have the free use of hundred thousands of acres of the finest prairies.

Partly cultivated land can be bought at from $5 00 to $30 00 an acre, paying scarcely the improvements heretofore made.

The miner can find profitable employment in the many mines, especially lead mines, which are now being developed.

The cheap and fertile land, the mild climate, where wine and fruit of the choicest kind ripen to perfection, the abundance of timber interspersed with small prairies, the abundance of minerals and the large navigable streams, and nearly 1000 miles of railroad, which make communication easy, form the great advantages offered by this State.

To encourage and promote immigration the Legislature has created a Board of Immigration by act of February 16, 1865. The Governor himself is the President of the Board, and while its present object is more to disseminate correct information than to give material aid, various facilities have been secured to immigration, as half fare on some of the Missouri railroads. The formation of auxiliary boards in different parts of the State has been encouraged, and all co-operate with the existing emigrant aid societies, as :

The Mullanphy Emigrant Relief Fund.

This fund was created by the will of one of our oldest and wealthiest citizens, Bryan Mullanphy, "to furni h relief to all poor emigrants and travelers coming to St. Louis on their way" bona fide to settle in the West. The Board of Commissioners of the fund is composed of the Mayor of the city and ten of the most respectable citizens ; they are to erect a building for lodging and boarding rooms, and for the deposit of baggage of the emigrants. The agent of the Board shall furnish them all necessary aid and information, and visit all cars and boats arriving with emigrants, providing the latter with trustworthy directions or material aid and comfort. The assets of this fund are over $500,000. But this bequest has been for years in litigation before it was finally decided in favor of the city of St. Louis in trust for the purposes mentioned ; owing partly to that litigation, partly to the condition of the State during the late rebellion, this large bequest, consisting in real estate, has not been very productive, and the revenue so far was absorbed by payment of claims and taxes accrued, etc. But these are now paid, and hereafter a rich and very beneficient annual income may be relied upon, which will be applied exclusively in aid of emigrants.

The German Immigrant Aid Society, existing since 15 years in the city. It consists now of about 350 members, paying each $3 00 and upward per annum; this society has a fund of only $5,000; but being very economically managed, the interests of that amount cover all expenses, and the contributions of members are applied exclusively in giving board and momentary support to poor, sick and unfortunate German immigrants. Being so well and long known it induces arriving Germans, who need employment of any kind, aid or advice, to call on the office of the Deutsche Gesellschaft as their friend and protector. One of the main tasks of the agent of this society is to aid emigrants in obtaining their lost baggage or indemnification for same.

In this connection permit me to draw your attention to the fact that although the immigrant is protected by existing acts while coming to this shore by steamships and vessels, he is quite unprotected after his arrival on his travels through this country, and is daily subjected to extortions and robberies, especially on the railroads leading West. While the fare itself is low enough, the emigrants are charged enormous rates for their baggage, and have to pay this charge mostly twice, as the railroads do not account for nor divide this charge with the western connecting lines ; and moreover, their baggage is frequently lost or robbed of its valuable contents, and the unexperienced traveler is unable to recover it. This great evil is respectfully brought to your special attention. It has a bad influence on immigration, filling the immigrant immediately after his arrival with diffidence and prejudice against the people of this country and its character.

Hoping that you will excuse the length and frankness of this communication,

I remain, most respectfully,

ISIDOR BUSH, *Secretary.*

He further stated that his correspondence and the office business in the cause of immigration was quite lively, and that he thought he could scarcely do justice to it. Also, that the action of the railroads outside of this State was not in the liberal spirit we had justly anticipated ; since the meeting of the General Ticket Agents at Chicago, and in pursuance of one of their resolutions, even those railroads, which have heretofore granted the half-fare privilege to immigrants, thought proper to withdraw the same.

Mr. Bush stated, further, that the Mullanphy Emigrant Relief Fund Commissioners had changed their office, in consequence of which he had to make another arrangement with them about our office, for which purpose they offered a very good room, No. 79 Locust street, adjoining our former office, at the low rent of fifteen dollars per month, which he accepted, subject to the approval of this Board.

On motion, the action of the Secretary was approved.

Several bills for expenses were then allowed to be paid.

On motion of Mr. Rodman, the Secretary was instructed to prepare, if possible (if the accounts, etc., could be obtained and settled with Mr. Souper), a report to be laid before the Legislature by the next first of January.

The Board then adjourned to meet again at the annual meeting in March, in the city of St. Louis.

Approved: FRED. MUENCH, *President pro tem.*

ISIDOR BUSH, *Secretary.*

SECOND YEAR.

FIRST QUARTERLY MEETING.

OFFICE MISSOURI STATE BOARD OF IMMIGRATION,
ST. LOUIS, MO., March 26, 1866.

The Board met at 3 o'clock P. M., this being the regular quarterly meeting. Present—Senator Frederick Muench, Isidor Bush and Amade Valle; also, Col. G. St. Gem, of St. Genevieve, Mr. Walker, of Rolla, as honorary members, and Mr. Jacusch, Clerk of the Board.

In absence of the President and Vice President, Mr. Muench was called to the chair. The minutes of the previous regular and called meetings were read and approved; also the new law concerning this Board of Immigration, being the revised statute, title twenty-three, chapter sixty-eight, as passed by the General Assembly at its last session, and approved March 6, 1866, which was ordered to be filed, and a copy thereof spread on our journal.

Mr. Valle reported that he had just returned from New Orleans, and did not have time as yet to arrange the affairs with the late treasurer of this Board, Mr. Thos. E. Souper, but had his promise to turn over the accounts and papers relating to the affairs of this Board, and still in his possession, to be submitted to the examination and approval of this Board.

Mr. Muench presented a written report about his labors as German Corresponding Secretary; also concerning Mr. Sturz, of Berlin, who had rendered valuable services in the cause of emigration to Missouri, and had come, in November last, to America, exerting himself to inaugurate new plans for a mass emigration from the old country to the new world. Mr. Muench showed, in his report, that the great efflux of men and means from Germany is now being counteracted by both the government and the liberal party, the latter apprehending that it may have to regret the loss of thousands of the most reliable friends of the cause of liberty in the looked for approaching crisis, and it becomes, therefore, the more necessary that we do not relax our activity in inviting immigration. Mr. Muench finally stated in his report that he had finished and arranged for the printing of his German Missouri Hand-book, which will probably be done by this time, and that copies may be looked for by next steamer from Bremen.

The report was received, and, on motion of Mr. Valle, the sum of one hundred and fifty dollars was appropriated for the purpose of remunerating agents in Europe for services rendered this Board, said sum to be placed in hands of our German correspondent for this purpose.

Mr. Bush laid before the Board a letter from Mr. Bittman (who had resigned as special agent), containing a brief statement to the effect that, besides the sum of $2000—which he received from the County Court, and which sum he had paid over to Mr. Valle, Treasurer, less fifteen per cent. collection fee)—he had solicited and collected contributions to the Immigration Fund, amounting to $900 only; $750 being one half year's salary, and $150 his contingent expenses. He, therefore, offered to turn over to the Treasurer only the uncollected bills in his possession (!). After full discussion of the subject, examining Mr. Bittman's former letters, etc., it was

Resolved, That Mr. Bittman has to furnish a proper and detailed account of his collections for the Board, as well as of his incidental expenses, and that fifteen per cent. be allowed to him for collection, as also such proper expenses incurred for this purpose, as he may show; but the balance is to be paid by Mr. Bittman to our Treasurer, or else will stand as a charge against Mr. Bittman until paid, or otherwise ordered by this Board.

M.. Bush reported that Mr. Schinkosky had acted as a soliciting agent, first under Mr. Bittman, but since the resignation of the latter, he had reported directly to this office; his list was a very creditable one, amounting to about $600—in very small amounts, mostly of five dollars, which are the more valuable as they are intended to be annual contributions hereafter. Mr. Schinkowsky had always promptly reported and delivered the amounts he obtained for the Immigration Fund, deducting only the commission of fifteen per cent. allowed.

On this report, and it being ascertained that Mr. Schinkowsky was now sick in hospital, it was, on motion of Mr. Bush,

Resolved, That forty dollars be, and are hereby, allowed as an extra compensation to Mr. Schinkowsky.

Various letters and communications to Governor Fletcher concerning immigration, especially applications for appointments as agents, commissioners of immigration, and other official and honorary titles, referred by his excellency the Governor to this Board, were read and indefinitely postponed. Also, bill of Caspar Butz (amount sixty dollars), for inserting a portion of Mr. Muench's preface to his book on Missouri in the German Monthly, the same not being considered nor ordered as an advertisement.

Several bills for expenses were then allowed and ordered to be paid.

Mr. Willis presented the following report of his labors and services as agent, which was ordered to be filed:

HON. ISIDOR BUSH, *Secretary:*

I have the honor to report, in brief terms, my work for the last three months, under commission of Governor Fletcher, President of the Board. I have traveled upward of four thousand miles, in the interests of Missouri, having lectured and given information about Missouri in various northern States, as well as in Canada. I have distributed a large amount of circulars, documents and some five hundred maps of Missouri, partly belonging to the Board of Immigration, the Hannibal and St. Joseph railroad and the North Missouri railroad.

I have written and printed fifty articles on Missouri in different papers throughout the country. Also an article on Missouri, published in Campbell's Emigrant Guide.

I have prepared a circular of newspaper form, of which twenty reams have been sent through the country; also a small circular, of which ten thousand copies have been printed and ten thousand more ordered.

I have written two hundred and sixty letters, many of them containing full and careful statements of the resources and advantages of emigration to Missouri, in answer to correspondents from nearly all the northern States besides many who have applied to me in person. I have also prepared a large folio circular, now in the printer's hands, of which fifty reams have been ordered, containing a mass of reliable information concerning the resources—agricultural and mineral—of the State and the advantages of emigration to Missouri.

My report of three busy months is brief, but a faithful exhibit of work which could only have been accomplished by the aid of an amanuensis.

Trusting that you will approve the work, and deem it both "square and plumb,"

I have the honor to be your obedient servant,

MARTIN W. WILLIS.

P. S.—In my next report, I shall have the pleasure of speaking of the State Board circular, which is now preparing for the press.

Mr. Bush, Secretary of the Board, reported verbally, noticing the action of the Commissioners for the Southwest Pacific railroad granting the privilege of half fare to bona fide immigrants over that road, stating that in view of the abuse made of such privilege, it appeared necessary that no other passes, but those issued at the office of the Board, or signed by the Secretary, should be recognized.

On motion of Mr. Valle, the action of the Secretary in this matter was approved, and the same was authorized to issue instructions that no other certificates for half fare should be considered as issued under authority of this Board.

A resolution of thanks, to be tendered to Professor S. Waterhouse for his valuable articles on Missouri in the New York Tribune, was also adopted.

On motion of Mr. Valle, it was further

Resolved, That the Secretary be instructed to procure a seal and press for the use of this office to identify the papers and documents of this Board.

On motion of Mr. Bush,

Resolved, That the Treasurer be authorized and directed to obtain from the State Auditor a warrant for the sum of two thousand dollars, and to draw the same from the State Treasury, to be appropriated to the use of this Board, as granted by the General Assembly under the appropriation act.

On motion of Mr. Muench, it was further

Resolved, That the Secretary is hereby authorized and directed to request the State Board of Agriculture to furnish this Board with a few hundred copies of their first annual report for gratuitous distribution.

Mr. Valle offered the following resolutions, which were adopted:

Resolved, That the Secretary be authorized to procure, if found necessary, fifty copies of Parker's Hand-book.

Resolved, That the Board appropriate a sum, not to exceed $250, toward printing a circular as proposed by Mr. Willis, and that the Secretary be instructed to superintend the arrangement of the same.

On motion of Mr. Bush, the salary of the clerk of the Board, Mr. Jacusch, was fixed at the rate of $900 per annum, commencing from April 1, 1866.

No further business appearing, the Board adjourned to its next regular meeting, unless sooner convened by order of the President.

Approved:

THO. C. FLETCHER, *President.*

ISIDOR BUSH, *Secretary.*

SECOND QUARTERTY MEETING.

MONDAY, June 25, 1866.

The State Board of Immigration met at 2 P. M. at their office in St. Louis.

Present—All the members of the Board.

The proceedings of last meeting were read and approved.

The Treasurer, Mr. Valle, reported a balance on hand of $2,732 25-100. The vouchers of the Treasurer were compared with the statement of his account as the same appears on his books, and proved.

Mr. Valle reported that he received from Mr. Souper, former Treasurer, $109, as a balance in his hands, belonging to this Board, and the papers and accounts showing his expenses while Treasurer. He now desired that a committee be appointed to investigate these papers and accounts.

The President, Governor Fletcher, appointed Messrs. Valle and Bush as such committee, with instructions to report to next regular meeting.

The following bills were also submitted by the Treasurer asking for instructions of the Board about their payment:

Bill of Missouri Democrat for publishing proceedings, $43 30; which was rejected.

Also, bill of same for advertising, ordered by Mr. Souper.

Also, bill of Plate & Co. and of Neue Anzeiger for similar advertisements; which were referred to the Treasurer to get them reduced.

Mr. Muench made following report:

To the State Board of Immigration:

The Missouri Hand-book is published in 5,000 copies, of which 1,000 were given in commission to a Bremen bookseller, the balance are at the disposal of the Board, to be circulated by our Bremen agent; 200 copies were ordered and sent here to our office in St. Louis.

By the way this matter was managed by myself and our able and efficient agent, the expenses are below our calculation. The appropriated sum of $1,000 will not only cover the expenses of printing, of the added maps and illustration, of the circulating, of the freight and duty, together with the account of our Bremen agent for services rendered and expenses, but leave about $200 as a remuneration for the author of the book, if the Board do not object. So far as immigration from Germany is concerned, the principal work is done; but I shall continue by my connection with the German public press to keep the ball rolling, and our excellent agent will not relax in his efforts, no further appropriations being necessary for the present.

FREDERICK MUENCH.

On motion of Mr. Rodman, the report was adopted, and the sum of $500 (being the balance of the appropriation for this purpose) was ordered to be paid to Mr. Muench to cover the expenses of said publication and its distribution in Europe; and the balance, if any, should be a small remuneration to the author for his loss of time devoted to this labor.

Thereupon, Mr. Muench tendered to the Board the copyright to his book on Missouri, which the Board accepted.

Mr. Bush reported that during the past quarter the special soliciting agent, Mr. Schinkowsky, had been very active, and his efforts had been comparatively successful; the contributions were small in amount, but the number of those engaging to contribute annually $5 to the Immigration Fund was large; as these contributors are to receive diplomas of honorary membership, the supply of diplomas became insufficient; he desired to get 500 copies printed. Messrs. Gast, Moeller & Co. demanded, however, $90, while other lithographers asked only $60. Messrs. Gast & Co. refused to deliver the stone to any other lithographer, claiming the stone as their property; this Board having paid only for the engraving (as per bill.) Thereupon he (the Secretary) made demand for the delivery of the engraving, and this being an impossibility without the stone, caused the sheriff to take possession of the same, and to be brought to another lithographer, who made transfer from said engraving and printed 500 copies, returning afterward the stone to Messrs. Gast, Moeller & Co. Mr. Bush acknowledged that he acted in this matter without any authority from this Board, but actuated only by what he deemed right and just, he was willing to shoulder the responsibility and to bear the consequences.

On motion of Mr. Muench, the action of the Secretary in this matter was approved unanimously.

Bill of Mr. Schinkowsky, special soliciting agent (who was sick in hospital at the time), for traveling expenses, $43 25 was allowed.

Mr. Bush reported that this office had been favored with 200 copies of the Missouri State Agricultural report for 1865, by kindness of the President of the Horticultural Society, for gratuitous distribution to persons immigrating, or contemplating to immigrate to Missouri, for which welcome gift the special thanks of this Board were expressed to Mr. Mudd, President, and Mr. L. D. Morse, Secretary.

The Secretary laid before the Board his correspondence with Mr. Bittman, former soliciting agent, and the reply of the latter directed to the Board, which, on motion, was laid on the table, (see appendix.) Also, letter of Mr. H. O. Sheldon, complaining that his name has been left out of the circular, edited by Mr. Willis for the Board, and that his certificates for half fare to immigrants are not considered authentic by this Board; which was also laid on the table, the Board adhering to its former resolutions in this respect. Also, an account of Mr. M. W. Willis for the issue of the first circular, Free Missouri, which was approved, and the payment of $125, on the part of this Board, was ordered.

Several bills of office expenses, as per vouchers of Mr. F. Jacusch, the Clerk of this Board, were also passed upon and allowed.

On motion of Mr. Rodman, Mr. M. W. Willis, General Agent, was continued in office, with the salary of $100 per quarter.

On motion of Mr. Muench, the Board of Immigration adjourned to meet again at its next regular quarterly meeting in September at Hermann, at Ripstein's Hotel.

Approved:

THO. C. FLETCHER, *President.*

ISIDOR BUSH, *Secretary.*

REGULAR MEETING OF THE BOARD OF IMMIGRATION.

SECOND YEAR—FOURTH MEETING.

Owing to the prevalence of cholera and other circumstances, the third regular meeting, on the last Monday in September, was not held, and, by order of the President, with the concurrence of several members of the Board, the fourth regular meeting was called for the 27th of December 1866, at St. Louis, when and where the Board assembled at its office.

Present—Hon. Francis Rodman, Vice President; Frederick Muench, Amade Valle and Isidor Bush, members; Messrs. W. C. Lange and George Husmann, honorary members; Frederick Jacusch, Clerk of the Board.

The minutes of the last meeting were read and approved.

Messrs. Valle and Bush, committee on accounts of Mr. Thomas E. Souper, former Treasurer, presented the following report:

To the honorable the State Board of Immigration:

The undersigned, your committee appointed to investigate and examine the account of Thomas E. Souper, ex-Treasurer of the Board, beg to report that they have examined the same, and find that the vouchers and receipts accompanying said account have not been audited, but correspond with said account, and that although large amounts were expended for stationery, printing and advertising, recommend the auditing of the account, and that said Thomas E. Souper be finally discharged.

A. VALLE,
ISIDOR BUSH.

DECEMBER 27, 1866.

Which, on motion of Mr. Muench, was adopted.

Reports of Mr. Frederick Muench, German correspondent; of Mr. M. W. Willis, General Agent; of Mr. Schinskowsky, Soliciting Agent; also, of Messrs. William C. Lange, John Ruedi, honorary members, concerning immigration to this State, and a special report of Mr. Willis concerning the result of his investigation made about a large number of Scandinavian immigrants brought to Rolla, for the Southwest Pacific Railroad Company, were laid before the Board by the Secretary, and were ordered to be made part of and appended to the biennial report to the General Assembly, prepared by the Secretary, Mr. Bush.

The latter then read the draft of a general report, which was, on motion of Mr. Rodman, adopted as the report of this Board.

Mr. Bush then laid before the Board the more detailed and voluminous report which he had prepared, explaining its plan and general features.

The Board directed Mr. Bush to present this report at an early day to the General Assembly, as it should, in fact, accompany the Governor's message. Owing to the circumstance, however, that the proceedings of this late meeting, and matters relating thereto, had to go into the report, and that the Secretary was waiting for some statistical information about which he had to write to several counties, a short delay was unavoidable.

The Vice President then laid before the meeting a communication of Prof. Waterhouse, asking for an appropriation to aid in the expense of publishing his article on Missouri in pamphlet form.

On motion of Mr. Bush, the sum of $300 was appropriated by the Board for the purchase of copies of said pamphlet, if Mr. Waterhouse should publish the same at his own expense.

The same laid before the Board a letter from Rev. H. O. Sheldon, desiring to continue agent, but, on motion of Mr. Bush, it was

Resolved, That this Board decline to accept the further services of Mr. Sheldon as their agent, and while the voluntary agency of every person in promoting immigration is welcome, this Board does not recognize Mr. Sheldon or any other person to be an authorized agent for the collection of moneys or other contributions to the Immigration Fund, except the one special agent appointed for that purpose—Mr. Schinkowsky.

This resolution having been adopted, the Secretary was directed to inform Mr. Sheldon thereof.

Various bills for office expenses, etc., were then examined, and those approved were ordered paid.

The Board then adjourned.

Approved:

FRANCIS RODMAN, *Vice President.*

ISIDOR BUSH, *Secretary.*

APPENDIX.

REPORTS OF AGENTS AND OTHERS.

REPORT OF THE GERMAN CORRESPONDENT.

I will make a few remarks on German immigration to Missouri. It may be true that new comers, already accustomed to the language and usages of this country, are, as a general thing, a more desirable acquisition to our State than those right from the old country, and yet the latter class have, doubtless, done more for the development and prosperity of Missouri than any other former immigration. Brought up in a hard school in the fatherland, and put to severe trials in their adopted country, where every thing is strange to them, unaided and friendless, they have, by their energy and perseverance, accomplished results deemed impossible by the more favored natives. If you will go to their extensive settlements you will find such improvements in agriculture, stock raising, fruit and wine growing, such uniform progress in general well being, and even wealth, in traffic and lively business of all kinds, as you hardly meet with in other sections of the State. The wilderness disappears before their skillful and industrious hands, and even the barrens are transformed into garden spots. They also succeed well in our larger and smaller cities, pursuing all branches of town business. They have become Americanized so far as circumstances appear to demand, preserving so much of their original character and former impressions as is either inoffensive or valuable ever and everywhere. This suggests a general remark. Man is a social being, and even nations must live and will thrive only on the social principle. Any nation secluding itself from the stimulating and corrective social intercourse with other nations is apt to remain behind, fall into narrow and contracted habits, and ultimately degenerate physically as well as mentally. Now, European nations form a sort of family, being located, as it were, in the same neighborhood, with many common interests, a perpetual exchange of ideas, a lively intercourse in peace and war. So far as the Germans are concerned, there is not a large city in all Europe where they could not be found by hundreds and thousands. The people of the United States, on the other hand, are separated by an ocean from the rest of the civilized world, but have the advantage of an uninterrupted and very considerable afflux of population from the different countries of the old world, mixing with their own population faster and more thoroughly than any other modern nation. I say this is an advantage, and even a necessity. Let us suppose that the Puritan fathers who first landed on the northeastern shores, and the chivalry and the wretched redemptionists who first settled Virginia, and their descendants, had remained secluded and confined to themselves, what would America be now? But there is little of the original blood remaining unmixed, and thus this new people has participated largely in the general progress and improvement of the other civilized nations; nay, taken a prominent position among them—gaining in importance, wealth, power and cultivation of the mind in the same proportion as they adopt and absorb the best forces, talents and blood flowing to them from the old world. Blessed on the other hand with physical conditions such as no other people ever enjoyed—I mean an immense fertile territory, with equally immense natural resources—they may widely open their doors to all, and welcome all who offer to unite their fate with theirs, with the honest intention to assist them in fulfilling the eminent task for which this nation seems to be destined.

Seeing my countrymen do so well in Missouri, and the State do so well by what they are and accomplish, and knowing that my native country has a surplus of industrious hands, for whom a sufficiently remunerative employment cannot be found there, I have made it one of my principal objects to give aid and advice to all those who expect to better their fortune by becoming free Missourians. My efforts are not unsuccessful. My Missouri Hand-book, printed and published in Germany by the arrangement of the State Board of Immigration in 5000 copies, is finding its way to the residence of the capitalist and the fireside of the poor, the home of the learned and the laborer's hut, in all sections of Germany and Switzerland, and is read with paramount interest, and so are my frequent articles of correspondence for several of the leading German papers and periodicals. In fact, Missouri is now before the gazing eyes of the German people as no other of our sister States is or likely will be, despite the manifold efforts made to defeat that purpose.

The recent war in Germany had to some extent interrupted emigration, but latterly it is so enormous that all the vessels on hand do not appear to suffice for the demand.

But this is not all. I am constantly asked by Germans residing in our neighboring or older States about the condition of things in Missouri, and for information about localities, routes, prices of lands, etc. From those States also we receive a valuable addition to our numbers. All our new comers love free Missouri, and there ought to be no regret in seeing them take the places of those who are still in their hearts opposed to the new and healthy order of things.

FREDERICK MUENCH.

REPORT TO THE STATE BOARD OF IMMIGRATION.

DECEMBER MEETING OF THE BOARD, 1866.

The Missouri Hand-book has been advertised and favorably reviewed by the leading journals of Germany and Switzerland, and Missouri is now universally recommended to emigrants as the most desirable country for new homes.

The condition of Germany after the late war is such that thousands of discontented think of and are making preparations for leaving the place of their nativity. In Switzerland it is chiefly the enormous surplus of population, and the growing scarcity of the most necessary resources, that make the most patriotic men think of grand schemes of foreign colonization.

Costa Rica and the Argentine provinces are spoken of by some, but latterly the scales seem to incline toward Missouri.

I continue to keep the cause of and the advantages offered by Missouri before the eyes of the Europeans, by articles of correspondence to the principal periodicals, wherein our Bremen agent aids me most faithfully and sedulously. From all I can learn I consider the prospects of Missouri, so far as emigration is concerned, prosperous and bright beyond expectation.

FREDERICK MUENCH.

REPORT OF THE GENERAL AGENT.

ST. LOUIS, December 26, 1866.

HON. ISIDOR BUSH, *Secretary State Board of Immigration:*

DEAR SIR. In this annual report I have the honor to give a brief summary of work done by me in behalf of emigration to Missouri, during the last twelve months. I have devoted my entire time, as well as that of a rapid writer, as assistant.

I have prepared various circulars, in the aggregate amounting to upward of 75,000 copies. These circulars, small and large, have been expressly prepared to attract attention to Missouri, by the simple statement of facts. They have been spread through this country, and also in England and Germany. I have received and answered about thirteen hundred letters, inquiring concerning emigration to Missouri, and asking special questions which needed reply. These letters have come from every Northern and several Southern States, as well as Canada. I have given special attention and information to more than a thousand persons applying to me. I have lectured in New England and the Middle States, and traveled upward of 10,500 miles. I have written and caused to be published, in the United States and Canada, more than 220 articles, from three columns to a quarter of a column in length. Many of these articles, giving an account of Missouri and its interests, have been widely republished.

I have lately removed to St. Louis, believing that I could be of more service to the State at this central point than elsewhere.

Much has been done through the agencies of the State Board which will blossom and bear fruit only in the future.

I would acknowledge the generous confidence of the North Missouri and the Hannibal & St. Joe Railroad Companies, without whose aid it would have been impossible for me to have performed this work.

So far as the State is concerned, my service has been a labor of love, for the amount received from the State, during the year, would scarcely pay for stationery, stamps, and little incidental expenses.

I have especially to thank you, and all the members of the Board, for many courtesies.

Trusting that the study of the resources of Missouri, and the experience of the past two years especially devoted to her interests, may make me more useful in the future,

I have the honor to be, with high regard,

Your obedient servant,

MARTIN W. WILLIS, *Agent State Board.*

QUARTERLY REPORT OF THE SPECIAL AGENT.

ST. LOUIS, December 27, 1866.

GENTLEMEN: I have the honor to submit hereby to your honorable body my report, showing the results of my functions from the 26th day of September, to the 25th day of December, 1866.

After I had traveled through the southeast counties, Ste. Genevieve, Perry, Cape Girardeau, and a part of Scott, I achieved tolerable good success for the emigration, and found a rich field for statistics. I was of the opinion that it is an absolute necessity for me to canvass all counties of the Southeast, and to establish, in all principal places, sub-agencies for the purpose of taking up subscriptions and collections, to gather statistics of the agriculture, manufacture and commerce of that part of our glorious State, to get all possible information in regard to the quality of our soil, the average value of it, the wages of labor, to give a description of the political and social life of the inhabitants in general, to submit these reports to the honorable Board, to publish the same in the radical republican newspapers, most of which kindly offered to publish all reports of the State Board gratis, and to call, by these means, the attention of all eastern men and foreigners to the advantages of the great State of Missouri. I have done so; the proofs of it, in the shape of extracts from different newspapers, are in the hands of the Secretary, the Hon. Isidor Bush.

In Hamburg, Scott county, where I commenced to work, I received $37 00 of twelve subscribers, six of which paid $5 00 a piece, and received diplomas of me. In Kelsotown I received $10 00 of four different parties. In this part of the country I found out that stone cutters, stone masons, stone quarriers, carpenters and farm hands are very much needed, and I sent, therefore, forty persons to different localities in that neighborhood. The Memphis packet line conveyed them for half fare. Besides those I sent eight families and sixteen single men of different trades to Cape Girardeau, and a great many to Perry and Osage counties. Quite a number has been provided for and sent from this office, as will be seen in the report of the clerk.

In Cape Girardeau I learned that his excellency the Governor, Mr. Charles P. Johnson and Mr. Pretorius, are canvassing the southeast counties of the State. I, having traveled all over that part and well acquainted with every loyal man there, concluded to accompany them. What I have done for the cause is well known to the President of the honorable Board.

Here I must remark that the travels of those three gentlemen were mostly in the interest of the emigration, and after the election I visited St. Charles. There I collected $243 00 of sixty persons. Thirty-eight received diplomas. Statistical remarks and receipts for the contributions have been published in the St. Charles Democrat, and are in the hands of the Secretary. Thence I went to Cottleville, St. Louis county, and received $12 00 of seven persons. One received a diploma. I learned from reliable sources there that German emigrants lately arrived lost, in a shameful manner, all they had, and are lying sick and destitute in Kansas and Iowa without any kind of employment or assistance, and that from fifty to eighty laborers, which have been hired by the North Missouri railroad, are in the neighborhood of Mexico, in this State, in a deplorable condition. I felt it my duty to make these facts known to the honorable Board, and to ask for assistance for these unfortunate beings. The Secretary, Mr. Bush, coincided with me, and ordered me to establish, without delay, in the name of the Board, sub-agencies in behalf of emigrants in the adjoining States of Kansas, Nebraska and Iowa. I traveled to those States and found the information received in St. Charles correct. One man, who broke a leg in a stone quarry, and was without medical assistance, I brought in Dr Kuhlenbacher's dispensary; for two families I procured employment for the whole winter, and the balance I took with me to St. Joseph, and engaged work for them on the Platte County railroad. In St. Joseph I found two feet high snow, and all communication with the Northwest stopped. I concluded, therefore, to consult all the influential citizens of Concil Bluffs, Omaha city and Nebraska City about organizing relief funds for emigrants.

During my stay in St Joseph I commenced collecting, and received $155 00 of sixteen persons. The County Court allowed $1000 00 for that purpose, but cannot pay it before next February. I presented the three county judges with diplomas. I made a petition to the Board of Common Council. The mayor, Hon. A. Beatty, said that he was personally against such taxation, especially in behalf of foreigners, and that he could not see any guarantee in the persons at the head of the same, but that he would, nevertheless, submit the petition at the next session of the council. He did not do it—left it in his business place, and never went near that meeting. I was advised by two members of the council, Mr. Hays and Mr. Kiefer, to take back my petition. What followed the honorable Board can see in the extract of the St. Joseph Volkszeiting. Mr. Kiefer moved in the session that an allowance of $500 00, for the Immigration Fund, be made. Next Monday it will be read the second time and voted on.

I petitioned the Platte County Railroad Company to grant to the honorable Board of Immigration the privilege of passing immigrants at half fare, as the North Missouri and the Iron Mountain railroads. I received the assurance of the directors and the Superintendent of the road (the President being absent) that my wish would be granted by the President, and that they would try to get a contribution of from $300 00 to $500 00 for the Immigration Fund besides this. The two stage companies in St. Joseph agreed also to conduct on their lines all emigrants for half the regular fare.

Emigrant relief societies are organized in Nebraska City, George Mohrenstecher president, and in Council Bluffs, Joseph Bachsele president. Both will enter in direct communication with the honorable Board of Immigration. A letter of Mr. Mohrenstecher accompanies this report. I could not work in Buchanan county on account of the impassable roads, and after I had finished my statistical notes in St. Joseph, I went back for the purpose of reporting to the honorable Board the results of my official actions.

Annexed I offer the bill, $120 30, which I hope the honorable Board will allow.

Very respectfully,

J. H. SCHINKOWSKY, *Special Soliciting Agent.*

St. Louis, Mo., September 15, 1866.

To the honorable the State Board of Immigration:

Gentlemen: It gives me pleasure to offer herewith my second annual report to your honorable body, showing the operations of my immigration business during the period from September 1, 1865, to August 31, 1866.

By comparing the same with my last annual statement, you will observe that immigration as well as emigration has increased about fifty per cent., comparing with the parallel period of 1854–5, though the recent war in Europe has had a decided influence in preventing immigration since June last.

What I call emigration consists of Missourians who made a trip of pleasure to Europe, and who always act as the best agents for promoting immigration; the proof of which assertion I shall give next year.

In the six months ending June 30 last, there arrived in the port of New York 124,687 emigrants, of whom 57,367 were Germans; during the parallel period of 1865, only 76,339 emigrants, including 22,366 Germans. This shows an increase of the total immigration of sixty per cent.; but of German immigration, one hundred and fifty-five per cent., while immigration from other than German countries only increased twenty-five per cent. The total immigration during the present year, up to August 31, amounts to 170,833, against 122,409 during the parallel period of 1865.

I consider it my duty to again call your attention to the remarks I made in my last annual report in regard to the maltreatment suffered by emigrants and their baggage on their transit from New York or Baltimore to this city. Though I have selected for my emigrant passengers the route on which they have the least change of cars, only three, and those in Union depots, at Philadelphia, Pittsburg and Chicago, thereby avoiding their traveling through large cities, well-founded complaints of all sorts are repeatedly made to me. At Pittsburg, it seems, a band of robbing boarding house keepers have free access to the depot, who, by kind words or by threats, induce emigrants to go to their houses, where they are retained until the train has departed, and are afterward forced to pay triple the amount originally agreed to, and often more than that. Though the sums of money so stolen may appear trifling to us, they are frequently the last penny of a family who, without it, cannot proceed on their journey west, and are, by its loss, subject to all kinds of inconveniences and often heavy losses.

So far as Missouri and Illinois are concerned, the poorer classes of emigrants will hereafter come by way of New Orleans. During the war emigration by that way had entirely ceased, for reasons sufficiently known to you, and since the close of the war ships could not there find sufficient return freight; but now I have already been advised of the sailing of five ships from Bremen during the last and the present months, thereby well reopening the natural channel of immigration to the West. It being the cheapest and most commodious way to all places in the Mississippi Valley, will undoubtedly be a great stimulus of immigration.

The Atlantic and Mississippi Steamship Company have agreed with me to take my emigrant passengers at New Orleans direct from the seaship on board their steamers, thereby avoiding the transfer and loss of persons and baggage through the city, and to carry them to St. Louis and places below at very reasonable rates, and I expect that on their arrival at this port, they will be welcomed and taken charge of by the agent of the German Society of the city, as it has been customary and very beneficial formerly.

Hoping that the foregoing may meet with a favorable reception,

I remain your obedient servant,

WM. C. LANGE.

REPORT OF EMIGRANT PASSENGERS transported by William C. Lange, for account of their friends in St. Louis and the West, from September 1, 1865, to August 31, 1866.

	Number of		Amount of passage money.
	Families	Persons.	
From Bremen, Hamburg and Havre to New York per steamer.....	143	276	$17,666 65
" " " per sail ships.....	201	390	15,442 45
From New York and New Orleans to St. Louis.....	475	854	14,941 90
From St. Louis, via New York to Europe, per steamer		375	14,563 65

St. Louis, Missouri, October 22, 1866.

His excellency the Hon. Thos. C. Fletcher, Governor of Missouri and President of the Board of Immigration:

Sir: I respectfully beg leave to submit to your excellency the following brief report of my efforts in behalf of immigration, while acting as immigration agent for Missouri during my three

months sojourn in Europe, and especially in Switzerland. I also beg leave to communicate such few observations as suggested themselves to me in regard to emigration from the countries of Europe during my stay there.

By your direction, I received at the time of my departure, from Isidor Bush, the worthy Secretary of your Board, maps, books and pamphlets for distribution in Europe, also, an order on Mr. Hauschild, in Bremen, for fifty copies of Muench's Missouri, and fifty copies of Nord Missouri. My route thither, not being via Bremen, the last named documents, were at request, forwarded to me by mail. These books and pamphlets were distributed by me, in my humble judgment, to the greatest advantage, to accomplish the object intended: to place before the people desirous of seeking a home in the Far West the advantages and natural resources of Missouri, and will serve, no doubt, to many, as a proper guide in selecting their future homes in our State.

On my journey there, by way of Liverpool and London, I observed on steamboats and railroads and in the cities mentioned, that one not conversant with the English language, and not provided with a superfluity of means, encounters many obstacles, and would therefore not recommend this route to emigrants. In France the difficulties or obstacles offered to that class of people are less, and it seems that, since late railroad companies, steamboat associations, and the government itself, have strived to do their utmost by protecting and assisting them to secure the tide of emigration from middle Europe through their country, which for many years has been a source of considerable revenue to Bremen, Hamburg and Antwerp.

On my arrival in Switzerland, I found that emigration had received a check, which was caused in part by the depreciated value of such effects as emigrants are generally compelled to sell, in order to procure the necessary means of defraying the expenses of their journey. It was, also, affected by the war then imminent, causing a prostration of business even in neutral Switzerland, and many a sturdy mechanic and laborer, who had confidently hoped to realize during the summer by his skill and labor the necessary means, in consequence of such depression of business and scarcity of demand for labor, will be obliged to postpone his journey indefinitely. But after the actual commencement of the war, a fair contingent of the able-bodied young men sought refuge in America.

Our late successful struggle against the rebellion carried on by our government, displaying our powerful means and inexhaustible resources, has had the good effect of inspiring the masses of Europe with confidence in the stability of our government, the principles of our Constitution, and its natural wealth and extensive resources. The admiration of our government is met in hut and palace, and the desire to become an American citizen is found where the circumstances will permit them to do so.

The governments of Europe are generally opposed to emigration, also the public prints, with the exception of a few newspapers in the interest of railroad and steamboat lines and emigration agents, which latter are very numerously met with.

In my judgment, Senator Muench's book, entitled Der Staat Missouri, would have a good effect with our neighbors in Illinois, Wisconsin, Iowa, etc., if circulated there, as from accounts which I have seen from them, while in Switzerland many are desirous of exchanging the somewhat rigid country for a more sunny climate.

On my return, I came by the way of Paris, Havre and New York, and found that the Swiss, south German and French emigrant agents, in connection with railroad directors, have done much to insure the safe expedition of emigrants to their places of embarkation by the assistance of special agents in Basel, Paris and Havre.

With the arrangements for the reception of emigrants in New York, and for seeing them safely on the way to their places of destination, I presume you are fully acquainted.

An agent, with a fixed salary, established at Basel to contract with emigrants for overland and ocean transportation, without charging them for these services, would be the means of protecting many from the sharp dealings of some of these agencies as now established, and might save them much they are now compelled to pay by way of high commissions, etc.

A direct and regular steam navigation from Havre or Bremen to New Orleans, or vice versa, in combination with a well regulated transport of emigrants on our Mississippi stream, would be the safest and cheapest route in future time to our State from Europe.

All of which is respectfully submitted, by

Your most obedient servant,

JOHN RUEDI.

REPORT CONCERNING THE SCANDINAVIAN IMMIGRANTS.

LETTER OF INTRODUCTION FROM HON. ISIDOR BUSH.

ST. LOUIS, MISSOURI, September 27, 1866.

W. Willis, Esq., General Agent State Board of Immigration:

DEAR SIR: In pursuance of instructions received from the President of this Board, Governor Thos. C. Fletcher, I have the honor to request you to proceed to Rolla at once, to investigate the complaints and rumors now circulated in respect to a large number of Scandinavian immigrants lately arrived there, and report the facts. It is the desire of this Board to protect emigrants, and see that justice is done in their behalf, if they have any good reason of complaint. You will be furnished with letters to proper persons at Rolla.

Please report the facts without delay.

I am, most respectfully, yours.

ISIDOR BUSH, *Secretary.*

Major William A. Gordon:

DEAR SIR: The bearer, Rev. M. W. Willis, is agent of the Missouri State Board of Immigration, and goes to Rolla in behalf of the Board, to examine into the matter of treatment of emigrants by your agents.

Please give him all possible facilities for this purpose, and if any of our directors should still be in Rolla, please introduce him,

And oblige yours, truly,

(Signed) JAMES TAUSSIG.

ST. LOUIS, October 5, 1866.

QUINCY, ILLINOIS, September 24, 1866.

To Governor Thos. C. Fletcher, President Board of Immigration:

I have the honor to submit the following brief report of my work as general agent of the Board:

I have delivered addresses on Missouri in six different States besides visiting Canada. I have traveled some seven thousand miles. Of various circulars, including the Free Missouri circular, fort-eight columns quarto, 10,000 copies, and a German circular, there have been some 75,000 copies printed for circulation. I have also distributed four thousand maps of Missouri, and directed hundreds who called upon me, and gave them information about Missouri, and have written more than two hundred articles for the press, and twelve hundred and fifty letters of correspondence.

This work has been accomplished by the aid of an amanuensis.

Trusting this will be satisfactory evidence of industry,

I have the honor to be, your obedient servant,

MARTIN W. WILLIS,

General Agent State Board of Immigration.

NOTE—Governor Fletcher: I send you a brief report of my work which I cannot submit without acknowledgment of your constant kindness and courtesy, and the kind offices rendered me by the Secretary, Hon. Isidor Bush, and indeed by all the officers of the Board.

I have faithfully worked in this behalf. I have a passion to work for Missouri, and I trust I have met your expectations. I shall try to do better service in future. I pray God peace may be preserved in all the State; the very apprehension of mischief deters some from coming. Soon may every dark cloud that lowers over our noble State cleave asunder and disappear forever.

Your obedient servant.

MARTIN W. WILLIS.

REPORT OF M. W. WILLIS CONCERNING THE SCANDINAVIAN EMIGRATION TO ROLLA, ETC.

ST. LOUIS, October 8, 1866.

To his excellency Governor Thos. C. Fletcher, President Board of Immigration:

I have the honor to acknowledge your order, and instructions from the Secretary, Hon. Isidor Bush, dated the 27th of September, to proceed at once to Rolla, and investigate the unpleasant rumors concerning the alleged ill-treatment of the Scandinavian emigrants who arrived on the 14th of September, and to report precisely the facts.

I have performed that duty, and beg leave to submit this report, with appended certificates and documents of evidence, in corroboration of the facts herein set forth.

Courting brevity, I have in this report condensed investigations pursued both in Rolla and St. Louis. I have made personal examinations of the quarters, houses and hospitals occupied by the emigrants, instituted inquiries of the people of Rolla, obtained certificates of the health officer, Dr. Wm. E. Glenn, Major W. A. Gordon, J. H. Concannon, and other contractors and agents of the Southwest Pacific Railroad Company. I have also to acknowledge the very intelligent and cheerful assistance of Col. C. A. Stevens, General Agent of the American Emigrant Aid and Homestead Company of New York, James Taussig, Esq., John E. Schuetze, Esq., Danish Consul, and also the aid of the officers of the Scandinavian Society of St. Louis, and the interpreter, C. A. Harring, who accompanied the emigrants from New York to Rolla.

From these sources, and the emigrants themselves, I have obtained the following facts.

The magnitude and incalculable importance of emigration to Missouri, whose broad and fertile acres seem to call for the landless of all nations to come, as well as your desire to see justice done to those who leave eastern States or far distant shores for new homes in this fair and beautiful State, combine to invest your order with such grave considerations that I have ventured to make suggestions in respect to European emigration, which the occasion permits and the subject seems to demand:

COMPLAINTS.

The rumors of dissatisfaction, on the part of the Scandinavian emigrants, and of ill-treatment and bad faith on the part of the Southwest Pacific Railway Company, whether false or true, may

all be classed under two heads: First. Complaints of bad faith on the part of the company and its contractors. Second. Ill-treatment and neglect on the part of the agents of the road.

It was reported that the emigrants were neglected, suffered for food on their way from New York to Rolla, that they were five days on the passage (but it is proved that they were only four), that they were huddled into a pen at Rolla like swine, had insufficient food, were dying of fatal disease, were improperly exposed to terrible storms, that the railway company was shamefully heartless in its conduct in all this matter of care of the emigrants. But, also, that it enticed men to Missouri with promises and pledges which they refused to fulfill; and, to crown all, that the company and its contractors offered them only one dollar and ten cents per day for labor on the road, that they never agreed to work constructing a railroad, that they were promised work at their trades at from three to five dollars per day, and therefore refused the work and wages of common laborers.

I believe this statement covers the entire ground of charges worthy the least attention.

EXPLANATIONS.

A careful sifting of evidence gives these results:

The charges of ill-treatment and neglect are utterly unfounded, and neither did the Emigrant Aid and Homestead Company nor the Southwest Pacific Railway Company desire, or intend, that any of their agents or interpreters should represent to the emigrants anything but the truth.

They supposed that these people had been fairly and fully informed that they were wanted to work on the construction of the Southwest Pacific railway line, and to purchase and cultivate the lands of the company, as they were able to do so.

The railroad company wanted laborers, and on that ground alone it advanced the passage money, some five thousand dollars, to land these emigrants at Rolla.

They supposed they were contracting with men who were willing to work at the price agreed upon, which was the current wages of the country. That they were offered such wages, and higher wages, is proved by certificates appended. But while some, perhaps twenty or thirty, have accepted the offers of the contractors, the large majority refuse to work and have drifted away in various directions.

There is a discrepancy between the statements of the emigrants and contractors as to the wages offered. But I have the authority of the Vice President and directors of the road, substantiating the fact that they were offered higher than the current wages given for such labor because they needed the labor, and desired to get pay for the money already advanced. But the company did not desire watchmakers, piano-forte builders, tailors, or music teachers to cut ties or lay rails, and build or remove embankments.

The mistake or understanding was mutual, and singularly unfortunate and expensive, while the emigrants had the benefits, practically, of a passage from Europe to Rolla, and were liberally provided with food, houses, blankets, for which they are indebted to the emigrant or the railway company.

There is reason to believe that unauthorized promises might have been made in Europe, or by the interpreters in New York, which led both the company and the emigrants into misunderstanding.

It must be considered what difficulties beset emigrants just landed, wholly ignorant of our language, liable to misunderstanding and subject to a lurking suspicion that they are to be wronged or cheated at the first opportunity.

Perhaps some of their own countrymen did them more harm than good by obtrusive and ill-judged intervention, teaching them to play false to their engagements. I believe their ignorance of the English tongue was one great reason of the difficulties that arose. The Southwest Pacific Railway Company believed these men pledged themselves to work for them, at the current wages of the country; and then, they for the most part, refused to work at all, or only at most exorbitant prices, at once ruinous to pay and dangerous to give as a precedent. The emigrants will easily find work in the State, and all just and proper influences will be used by the intelligent officers and members of the Scandinavian Society of St. Louis, who are deeply interested to see that the emigrants, as they are able, refund to the company the amount of their indebtedness.

A want of care or discrimination is evident in sending out mechanics to do common labor. If any persons in New York or Europe promised these people the high wages that they claimed, it was a fraud not less upon them than the Emigrant Company and the railway corporation. This unhappy failure of what should have been, with care and adaptation, a splendid success, will teach by costly experience valuable lessons for the future. While it does not appear by whom these high wages were promised, and I have the strongest assurance that the Emigrant Company did not authorize any agent to do so, yet it would be natural for parties in Europe interested in emigration to set forth the high prices paid in America for skilled labor.

ILL-TREATMENT AND NEGLECT.

Having endeavored to explain some of the causes of misunderstanding in regard to work and wages, I would here enter upon the subject of ill-treatment.

The Scandinavians speak in highest terms of their passage from Norway to New York. Only one was sick on the voyage. At New York they were taken good care of, and their bills paid by Col. C. A. Stevens, General Agent of the Emigrant Company, who directed one of their own countrymen to furnish full rations for the company to St. Louis, at a cost of some five hundred dollars, but it seems they had hardly sufficient. They were four days on the road from New York to Rolla. Certainly not a long passage for an emigrant train; and part of the way, on the Pennsylvania line, they came t rough on express time by special contract. When they arrived in St. Louis the rain was pouring in floods. Here they were received by the agents of the Southwest Pacific Railroad Company, who, while they could not control the elements, did all they could for them, providing lodgings and food, and sent them on to Rolla by the morning train. There they were lodged in large warehouses, and dwelling houses for the women. Like other parties of emigrants, they suffered from sickness, superinduced by a sea voyage, a change of climate and by carelessness on

their own part, but especially by the remarkably long-continued and cold rain storm, lasting eight days, penetrating not only their quarters, but many of the dwelling houses in Rolla. A hospital was established by Major Gordon; the best of medical attendance, and nurses and medicine were provided at the expense of the company. A special train was dispatched to take them ten bales of blankets and stores. The warehouse was well floored, and where it leaked tarpaulins were obtained from St. Louis and stretched over the roof. The alarming sickness was of the typhus, or ship fever type, of which only nine of two hundred and fifty-eight emigrants died; for Dr. Glenn instituted sanitary precautions among the well, and had the sick at once removed to the hospital, and, with Major Gordon, cared for them with unceasing vigilance. Had it not been for skillful and timely precaution, the sickness could not have been controlled, and would have been exceedingly fatal. Only one remained in the hospital when I made the examination.

RATIONS.

I made particular inquiry as to rations, and found them abundant and excellent in quality, including soft bread, and coffee made from the berry. Each one had beef and ham, equal to one pound and a-half daily. I think there never would have been any rumors of ill-treatment or neglect, and no fabrications about poor and insufficient food, had it not been for the terrible storm, the mistake as to the kind of work, and the misunderstanding in regard to wages.

The evidence is conclusive. It is hard to see what more could have been done on the part of the railroad company, which expended some four thousand dollars for these emigrants, besides the cost of their transportation from New York, without any other voucher than common charity and sheer humanity. With no benefit to the company, they were guarded from the storm, sheltered and fed, and taken care of in sickness. Even their food was cooked for them by the people of Rolla The charges of neglect and ill-treatment cannot be sustained. The fact that the current wages of the country were offered and refused is apparent, and that mistakes were made and misunderstandings arose. I do not undertake to say that they refused to work for the company, because if they did so they would have a certain portion of their wages deducted to pay for their transportation—a theory some might entertain, for it might have grown out of their disappointment in not finding employment in the trades at which they had been educated.

Among so large a number there were, doubtless, reckless and bad men, who might have sold the blankets that were given them for use, and otherwise exhibited a bad spirit. But, for the most part, they were well behaved, and a valuable addition to the working population of Missouri. Influenced by a genuine sense of honor, a large number of them have expressed the determination to pay their indebtedness as soon as possible. The efforts of the Scandinavian Society in this city will not be wanting in this regard.

A WORD OF CAUTION ABOUT EMIGRATION.

It cannot be too strongly insisted upon that care be exercised by those who undertake to promote emigration, not to hold out unreal expectations, nor disappoint those men who leave fatherland for home in free America by extravagant promises or delusive hopes.

Let it be remembered that the emigrant unacquainted with our language, manners and customs cannot expect, however skillful at his trade, to receive at once the highest prices for his work. He has much to learn before he will be equal to our first-class mechanics, who have been years in this country. It is a mistake to induce emigration by special and specific pledges of so many dollars per day. No matter if they are perfectly true. For much depends upon personal skill and ability, which only time can develop or prove. Two men working at the same job and trade may not receive equal wages, since they may not have equal skill or ability to accomplish equal work in the same time. The raw and inexperienced emigrant does well if, in the first year or two, he can pay his way while he is learning the habits and character of the people, and becoming accustomed and attuned to a national and industrial life on a far different scale from which it appears to men of his class in Europe. He must study to become an intelligent citizen, as well as a useful artisan, a prospering trader or a thriving farmer. Agents in Europe should be explicit in filling orders for labor, to explain to those willing to come just the kind of work for which he engages them, the price in gold that they will be paid, and the cost of living here. If agents deceive in this, or are not intelligent enough to do it, they have no business to represent any such highly respectable organization as the American Emigrant Aid and Homestead Company of New York.

IT IS TRUE.

The general statement is doubtless true, that no country in the world offers greater inducements to skilled labor or honest toil than the United States.

Here is a magnificent field. It is the poor man's paradise, where caste, privilege and power can neither control nor bereave him of the fruits of his own energy and labor. In a few years, the penniless emigrant landed on our shores may often achieve a fortune by industry and intelligence. He may work his way to Missouri and purchase our fertile lands of railway companies on credit, and soon find comparative wealth in the generous products of this most favored climate, untouched by the wasting heats of more southern latitudes or the chilling frosts of more northern regions. Indeed, there are thousands of naturalized citizens who have become wealthy by settling in Missouri. Such are now among the respected and honored men of influence in the State. But this is the patient work of years.

The emigrant just arrived cannot hope to have even his food, hardly a night's lodging, unless he earn it. He should be content with less wages than he will receive when he has learned our ways and our language. But he should recognize the fact that he gets more than his wages by coming to the United States. There are other things of priceless value that he may enjoy. He enters, in

a short time, by our liberal laws, into all the rights, protection and privileges of a citizen of this country, where talent, skill and power have free scope to achieve their best, and liberty to secure the results of his labors, in both honor, competence and the respect of the world.

FREE PASSAGE EMIGRATION.

These Scandinavians received a passage from Christiana to New York on credit. Each one, before the American consul, signing a contract to pay a certain amount of his wages to refund the company who furnished transportation. It is a matter worthy of serious consideration how far this is wise, in respect to public policy or as a financial operation. There have been instances of the successful importation of skilled labor, where the expense was assumed by parties desiring the labor. But certainly, those who have the skill to learn and practice a trade should be able to acquire sufficient means to pay their own passage to this country. And such are to be more relied upon to make useful citizens than those who have never been able to earn or keep a surplus equal to the price of a passage on an emigrant ship across the Atlantic. We welcome men without money to Missouri, if they have capital in muscle or skill; but our best emigration consists of those who bring mind, muscle and money.

FREE MISSOURI WELCOMES IMMIGRATION.

Unusual satisfaction and interest were felt in respect to this Scandinavian emigration to Missouri; and, on the whole, I venture to predict that the mistakes incident to this migration will not hinder more from coming when all the facts are known. Many of them are employed in St. Louis.

Missouri needs men skilled in labor, strong in health and simple in habits. We can find work and wages for a hundred thousand every year. We invite them to come, and welcome them to our noble State. Its choicest fields are not yet tilled—its richest mines are not yet developed. Missouri opens wide her arms, and invites the young, the brave and enterprising to come and settle on her soil. Her prairies are rich, and beautiful, her rivers and forests mighty, her climate charming. Come, from the overpopulated, and high-priced lands of the Eastern States; come, from the sterile and bleak hills of New England; from over-crowded Europe where labor longs for work. They will make our towns busy with the hum of manufacturing; they will enter upon lands, and produce golden harvests, where now the vegetation is only an annual waste, or they will work in our mines and heap up wealth for the State. Come, then, from crowded cities washed by the sea. Come and help us to build up our rising civilizations, and make Missouri not only an empire within itself, but the banner State of the Union. With all due and courteous acknowledgment to various parties for special help and favors in this investigation, I have the honor to submit the foregoing report with documents appended.

With sentiments of high regard,
I am, your obedient servant,
MARTIN W. WILLIS,
General Agent State Board of Immigration.

CONTRACTOR'S OFFICE, S. W. P. R. R.
ROLLA, Oct 7, 1866.

MY DEAR SIR: I have the honor to acknowledge the receipt of your communication requesting such information in relation to the Scandinavian emigrants and their employment "as are within my knowledge," and I take great pleasure in replying to the same.

The emigrants arrived at Rolla about the 11th ultimo, in the evening. Very soon after their arrival the most tremendous and protracted rain storm that has ever occurred "within the memory of the oldest inhabitant" set in, and continued, as is well known, with but slight intermissions, during the greater portion of September. Besides being wet, the weather was chilly, and it was impossible to do much work in the way of grading. Nevertheless, in response to the urgent requests and injunctions of the Chief Engineer, J. P. Robinson, Esq., and other responsible officers of the company, I did make effort to put them to work. My first attempt was made on the suggestion of a gentleman of high character who was sent out by the railroad company as a special agent from New York, to assist the emigrants. Some twenty-eight wood workers were selected to go out and cut ties, at the same rate as other men who were getting ties for the company. I went to work and bought axes for chopping and hewing; sent two wagons to carry out their baggage, as well as flour, meat, sugar, coffee, etc.; went with them to the timber, selected proper and advantageous locations for their operations, and took every precaution possible to secure for them both comfort and success. We arrived on the ground—eight miles west of Rolla—when their spokesman informed me that his party, having consulted with parties in the same vicinity, who were cutting ties, were not satisfied to work by the piece, and would not strike a lick short of three dollars per day and their board, payable each Saturday. Of course, I could not assent to this; but I endeavored to satisfy them. As the company would protect me from loss in their employment, I told them that I would give them *double* what others were getting; but even this was not satisfactory, and they returned to town leaving my property behind. Subsequently, on my return to town, so anxious was I to carry out the wishes of the company, that, in the presence of Major Gordon and Mr. Henry, I renewed this offer, without avail.

I then undertook to employ those who had no trades, as laborers. Quite a number of these were young men not well adapted for such hard labor, and more of them were used to this work. As a consequence, they were not worth as much as other labor (Irish), who were accustomed to the work. I have already made this communication too long, and I will therefore say, briefly, that the results were substantially as above related. I offered them sixteen dollars per month and their

board, wet or dry, as the weather might be. I offered them $1 50 to $1 60 per day for each working day, if they preferred; but they would listen to nothing of the kind. Two dollars per day and board was their only condition, and they would listen to nothing else.

Finally, I resolved that as the company were losing money by them in furnishing them with food, I concluded to offer them, one and all (laborers), the highest price paid to the best laborers on the work, and they peremptorily refused to go to work. I will here say, that such an arrangement would have entailed material loss upon the contractors, but for reasons already mentioned my desire was earnest to get them into employment. On three different occasions did I hire wagons to transport their luggage, and built shanties for them, and when they had eaten their dinners they threw away their shovels and started for town.

No longer ago than yesterday I offered these men current wages, and repeatedly, through their interpreter, urged them to go to work—offering them clothes, etc., in advance—but with the same results.

You will be able to judge from the foregoing whether or not proper efforts have been made to employ these men, and whether their conduct has been consistent with good faith toward any one.

It may be a matter of inquiry why these men would not work for the company with these inducements. The answer is plain, and may be summed up under three headings:

1st. Probably no body of emigrants ever came into the United States under such favorable auspices, and such extraordinary advantages in their favor, as did this lot. Their passage had been paid from their native land to New York by the Emigrant Company, and the Southwest Pacific had advanced funds to transport them from New York to Rolla. After their arrival here the Pacific Railroad Company not only furnished them with meat, bread and potatoes of the best quality, as well as sugar, coffee and rice, but they provided cooks to bake their bread and cook their meals. The company have all along continued this policy, up to yesterday, and I frankly say to you that this had a bad result. They received too much kindness; they did not realize it was necessary to work, and when a man went out to work for the contractors, if he did not like the prospect, all he had to do was to go back to Rolla and find rations and blankets free.

2d. These men knew that they owed somebody for their passage and board. As the company was making efforts to work them on construction, they suspected that sometime or other the company would endeavor to get their money back. Many openly stated that they never would pay the company one cent, and for that reason demanded the cash each Saturday night as a prerequisite. This will explain why many of these emigrants left Rolla and went into the interior to farmers at eight dollars per month.

3d. Very many had formed the most extravagant ideas as to wages. The laborers expected and insisted for some days on three dollars per day and board; the carpenters never would consent to work in their trade at less than five dollars and board, and others in proportion.

In conclusion, permit me to say that I am heartily in favor of all emigration schemes, looking to the filling up of Missouri with a healthy and thrifty population, and the development of our most wonderful resources. I am not discouraged because of the results in this particular case. Under less favorable surroundings for the emigrants, this labor can be made available, even in the building of railroads, and perhaps ultimate results would be satisfactory beyond sanguine expectation. But it cannot be done unless a perfect understanding exists between the emigrants and all parties concerned; and especially let it be understood that if the emigrant eats he must work.

Yours, in haste,

J. H. CONCANNON,

For the Contractors, Howland, Concannon & Co.

To REV. M. W. WILLIS, *General Agent State Board of Immigration.*

ROLLA, Mo., October 7, 1866.

I, W. A. Gordon, Agent of Southwest Pacific railroad, hereby certify that on the 11th of September I was directed to make arrangements to proceed to Rolla and provide food and shelter for a party of Scandinavian emigrants, then en route from New York. I at once provided necessary food and quarters. Upon arrival of the emigrants on the 14th of September, without baggage or bedding, I telegraphed to St. Louis requesting at once a supply of blankets for their comfort. The company dispatched a special train with ten bales of blankets. We had a remarkable rain storm which continued some eight days. Sickness consequently made its appearance among them. The best medical attendance and diet and stimulants were furnished at the expense of the company. The rations were abundant, the quarters were dry and as comfortable as other buildings in Rolla, and the sick were removed to hospital and specially cared for by the company.

W. A. GORDON.

I hereby certify that in my official capacity I was brought into intimate connection with the Scandinavian immigrants who arrived here about the 10th September, and that all sanitary measures calculated to prevent the spread of disease and to promote the general health and comfort of these men were promptly and even liberally adopted and provided by the Southwest Pacific Railroad Company, through its officials specially sent here and those stationed at this place.

I have also reason to believe that every care and attention has been taken to render their condition and circumstances comfortable in every respect and pleasant as possible.

(Signed) WILLIAM E. GLENN, M. D.,

Health Officer of the city of Rolla, Mo.

ROLLA, Mo., October 8, 1866.

ROLLA, Mo., October 7, 1866.

I, A. Harring, am employed as interpreter, and accompanied a party of emigrants from New York to this place reaching here the fourteenth day of September, 1866. I have been with them and seen and am cognizant of their treatment daily, and hereby certify that the Southwest Pacific Railroad Company has fully and truly performed its duty, and given these emigrants all proper care, full and sufficient rations, blankets, good, dry quarters and medical attendance. The emigrants were offered work at the current wages of the country by the railroad company, which was generally refused by them or a majority of them.

A. HARRING.

LAWS TO ENCOURAGE IMMIGRATION.

AN ACT TO ENCOURAGE IMMIGRATION.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States is hereby authorized, by and with the advice and consent of the Senate, to appoint a Commissioner of Immigration, who shall be subject to the direction of the Department of State, shall hold his office for four years, and shall receive a salary at the rate of two thousand five hundred dollars a year. The said Commissioner may employ not more than three clerks, of such grade as the Secretary of State shall designate, to be appointed by him, with the approval of the Secretary of State, and to hold their offices at his pleasure.

SEC. 2. *And be it further enacted,* That all contracts that shall be made by emigrants to the United States in foreign countries, in conformity to regulations that may be established by the said Commissioner, whereby emigrants shall pledge the wages of their labor for a term not exceeding twelve months, to repay the expenses of their emigration, shall be held to be valid in law, and may be enforced in the courts of the United States, or of the several States and Territories; and such advances, if so stipulated in the contract, and the contract be recorded in the recorder's office in the county where the emigrant shall settle, shall operate as a lien upon any land thereafter acquired by the emigrant, whether under the homestead law when the title is consummated, or on property otherwise acquired, until liquidated by the emigrant; but nothing herein contained shall be deemed to authorize any contract contravening the Constitution of the United States or creating in any way the relation of slavery or servitude.

SEC. 3. *And be it further enacted,* That no emigrant to the United States who shall arrive after the passage of this act shall be compulsively enrolled for military service during the existing insurrection, unless such emigrant shall voluntarily renounce under oath his allegiance to the country of his birth and declare his intention to become a citizen of the United States.

SEC. 4. *And be it further enacted,* That there shall be established in the city of New York an office to be known as the United States Emigrant Office; and there shall be appointed, by and with the advice and consent of the Senate, an officer for said city, to be known as superintendent of immigration, at an annual salary of two thousand dollars; and the said superintendent may employ a clerk of the first class. And such superintendent shall, under the direction of the Commissioner of Immigration, make contracts with the different railroads and transportation companies of the United States for transportation tickets, to be furnished to such immigrants, and to be paid for by them, and shall, under such rules as may be prescribed by the Commissioner of Immigration, protect such immigrants from imposition and fraud, and shall furnish them such information and facilities as will enable them to proceed in the cheapest and most expeditious manner to the place of their destination. And such superintendent of immigration shall perform such other duties as may be prescribed by the Commissioner of Immigration; Provided, That the duties hereby imposed upon the superintendent in the city of New York shall not be held to affect the powers and duties of the Commissioner of Immigration of the State of New York. And it shall be the duty of said superintendent in the city of New York to see that the provisions of the act, commonly known as the passenger act, are strictly complied with, and all breaches thereof punished according to law.

SEC. 5. *And be it further enacted,* That no person shall be qualified to fill any office under this act who shall be directly or indirectly interested in any corporation having lands for sale to immigrants, or in the carrying or transportation of immigrants, either from foreign countries to the United States and its Territories, or to any part thereof, or who shall receive any fee or reward, or the promise thereof, for any service performed or any benefit rendered to any person or persons in the line of his duty under this act. And if any officer provided for by this act shall receive from any person or company any fee or reward, or promise thereof, for any services performed or any benefit rendered to any person or persons in the line of his duty under this act, he shall, upon conviction, be fined one thousand dollars, or be imprisoned not to exceed three years, at the discretion of a court of competent jurisdiction, and forever after be ineligible to hold any office of honor, trust or profit in the United States.

SEC. 6. *And be it further enacted,* That said Commissioner of Immigration shall, at the commencement of each annual meeting of Congress, submit a detailed report of the foreign immigration during the preceding year, and a detailed account of all expenditures under this act.

SEC. 7. *And be it further enacted,* That the sum of twenty-five thousand dollars, or so much

thereof as may be necessary, in the judgment of the President, is hereby appropriated, out of any money in the Treasury not otherwise appropriated, for the purpose of carrying the provisions of this act into effect.

Approved July 4, 1864.

AN ACT TO SECURE HOMESTEADS TO ACTUAL SETTLERS ON THE PUBLIC DOMAIN.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his declaration of intention to become such, as required by the naturalization laws of the United States, and who has never borne arms against the United States government or given aid and comfort to its enemies, shall, from and after the first of January, 1863, be entitled to enter one quarter section or a less quantity of unappropriated public lands, upon which said person may have filed a pre-emption claim, or which may, at the time application is made, be subject to pre-emption at one dollar and twenty-five cents, or less, per acre; or eighty acres or less of such unappropriated lands, at two dollars and fifty cents per acre, to be located in a body, in conformity to the legal subdivision of the public lands, and after the same shall have been surveyed; Provided, That any person owning and residing on land may, under the provisions of this act, enter other land lying contiguous to his or her said land, which shall not, with the land so already owned and occupied, exceed in the aggregate one hundred and sixty acres.

SEC. 2. *And be it further enacted,* That the person applying for the benefit of this act, shall upon application to the register of the land office in which he or she is about to make such entry, make affidavit before the said register or receiver that he or she is the head of a family, or is twenty-one or more years of age, or shall have performed service in the army or navy of the United States, and that he has never borne arms against the government of the United States or given aid and comfort to its enemies, and that such application is made for his or her exclusive use and benefit, and that said entry is made for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use or benefit of any other person or persons whomsoever; and upon filing the said affidavit with the register or receiver, and on payment of ten dollars, he or she shall thereupon be permitted to enter the quantity of land specified; Provided, however, That no certificate shall be given or patent issued therefor until the expiration of five years from the date of such entry; and if, at the expiration of such time, or at any time within two years thereafter, the person making such entry—or if he be dead, his widow; or in case of her death, his heirs or devisee; or in case of a widow making such entry, her heirs or devisees in case of her death—shall prove by two credible witnesses that he, she, or they have resided upon or cultivated the same for the term of five years immediately succeeding the time of filing the affidavit aforesaid, and shall make affidavit that no part of said land has been alienated, and that he has borne true allegiance to the government of the United States, then, in such case, he, she, or they, if at that time a citizen of the United States, shall be entitled to a patent, as in other cases provided for by law; And provided further, That in case of the death of both father and mother, leaving an infant child, or children under twenty-one years of age, the right and fee shall inure to the benefit of said infant child or children; and the executor, administrator, or guardian may, at any time within two years after the death of the surviving parent, and in accordance with the laws of the State in which such children for the time being have their domicile, sell said land for the benefit of said infants, but for no other purpose; and the purchaser shall acquire the absolute title by the purchase, and be entitled to a patent from the United States, on payment of the office fees and sum of money herein specified.

SEC. 3. *And be it further enacted,* That the register of the land office shall note all such applications on the tract books and plats of his office, and keep a register of all such entries, and make return thereof to the General Land Office, together with the proof upon which they have been founded.

SEC. 4. *And be it further enacted,* That no lands acquired under the provisions of this act shall in any event become liable to the satisfaction of any debt or debts contracted prior to the issuing of the patent therefor.

SEC. 5. *And be it further enacted,* That if, at any time after the filing of the affidavit, as required in the second section of this act, and before the expiration of the five years aforesaid, it shall be proven, after due notice to the settler, to the satisfaction of the register of the land office, that the person having filed such affidavit shall have actually changed his or her residence, or abandoned the said land for more than six months at any time, then and in that event the land so entered shall revert to the government.

SEC. 6. *And be it further enacted,* That no individual shall be permitted to acquire title to more than one quarter section under the provisions of this act; and that the Commissioner of the General Land Office is hereby required to prepare and issue such rules and regulations, consistent with this act, as shall be necessary and proper to carry its provisions into effect, and that the registers and receivers of the several land offices shall be entitled to receive the same compensation for any lands entered under the provisions of this act that they are now entitled to receive when the same quantity of land is entered with money, one-half to be paid by the person making the application at the time of so doing, and the other half on the issue of the certificate by the person to whom it may be issued; but this shall not be construed to enlarge the maximum of compensation now prescribed by law for any register or receiver; Provided, That nothing contained in this act shall be so construed as to impair or interfere in any manner whatever with existing pre-emption rights; And provided further, That all persons who may have filed their applications for a pre-emption right prior to the passage of this act shall be entitled to all privileges of this act; Pro-

vided further, That no person who has served, or who may hereafter serve, for a period of not less than fourteen days in the army or navy of the United States, either regular or volunteer, under the laws thereof, during the existence of an actual war, domestic or foreign, shall be deprived of the benefits of this act on account of not having attained the age of twenty-one years.

SEC. 7. *And be it further enacted*, That the fifth section of the act entitled "An act in addition to an act more effectually to provide for the punishment of certain crimes against the United States, and for other purposes," approved the third of March, in the year eighteen hundred and fifty-seven, shall extend to all oaths, affirmations, and affidavits required or authorized by this act.

SEC. 8. *And be it further enacted*, That nothing in this act shall be so construed as to prevent any person who has availed him or herself of the benefits of the first section of this act from paying the minimum price, or the price to which the same may have graduated, for the quantity of land so entered at any time before the expiration of the five years, and obtaining a patent therefor from the government, as in other cases provided by law, on making proof of settlement and cultivation as provided by existing laws granting pre-emption rights.

Approved May 20, 1862.

THE HOMESTEAD LAW.

CIRCULAR.

GENERAL LAND OFFICE, October 30, 1862.

"GENTLEMEN: Annexed is a copy of the act of Congress approved May 20, 1862, entitled "an act to secure homesteads to actual settlers on the public domain." The privileges of this law are extended to every person who is the head of a family, or who has arrived at the age of 21 years, and is a citizen of the United States, or has declared his intention of becoming such, and who has done no disloyal act, direct or indirect. An exception, however, to the foregoing requirement as to age is made in the 6th section of the act, in favor of any person who has served not less than fourteen days in the army or navy of the United States, either regular or volunteer, during actual war, domestic or foreign. Any person coming within the foregoing requirements will, from and after January 1, 1863, have the right to enter one quarter section, or a less quantity, of unappropriated public land, upon which said person may have filed a pre-emption claim, or which, at time of application, is subject to pre-emption at $1 25 per acre; or eighty acres, or less, of such unappropriated lands, at $2 50 per acre.

The law requires the land "to be located in one body, in conformity to the legal subdivisions of the public lands, and after the same shall have been surveyed."

Any person owning and residing on land may enter contiguous land, which, with that already owned and occupied, shall not exceed in the aggregate one hundred and sixty acres.

The applicant for the benefit of the law is required by the 2d section to file with the register his "application," which should designate the tract desired to be entered. He must also file his "affidavit," to be taken before the register or receiver, setting forth the facts which bring him within the requirements of the law, and adding that the "application is made for his or her exclusive use and benefit, and that the said entry is made for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use or benefit of any other person or persons whomsoever."

The said 2d section of the act further provides for the issue of patent to the applicant after five years' settlement; also for the succession in case of his death, and for the sale of the land for the benefit of infant heirs, but for no other purpose.

The 3d section requires the register to enter all applications on the tract books and plats of his office; to keep a register of entries, and make returns to this office with the proof.

The 4th section declares lands acquired under this act not liable for debts contracted prior to the issuing of the patent.

The 5th section makes abandonment of the land for more than six months at any time within the five years, cause of forfeiture.

The 6th section forbids the acquirement of more than one quarter section, by any individual, under this act; protects existing pre-emptions, repeating the provision of section 1 in regard to pre-emptions, giving them all the privileges of the act; allowing the registers and receivers the same compensation for lands entered under this act which they are entitled to when the same quantity is entered with money; one-half to be paid by the person making the application, at the time of so doing, and the other half on the issue of the certificate, to be paid by the person to whom it may be issued, but not to enlarge the maximum compensation now allowed by law.

The 7th section stipulates the penalty for false swearing.

The 8th section permits claimants to pay for their entries at any time before the expiration of five years, and obtain patents, upon making proof of settlement and cultivation as required by the pre-emption laws.

You will accordingly be prepared, on the 1st day of January next, to receive applications and affidavits (forms A and B, herewith.) The register should test the correctness of the "application" by his records, being careful that the tract applied for shall be of the class and quantity stipulated by the 1st section of the act, lying in one body, and comprising legal subdivisions; and will then append thereto his certificate of its regularity.

1. The applicant will then be allowed to enter the tract applied for, by paying to the receiver the $10 fee stipulated in the act; and the further payment, as commissions of register and receiver, of one-half of one per cent. to each upon the cash value and quantity of land applied for;

the other half of the one per cent., as commissions to said officers, not to be paid until the certificate is issued, when the party obtaining such certificate is to make the payment.

2. The receiver will issue homestead duplicate receipts for each entry (form C, herewith); one to be delivered to the applicant, the other returned to this office. A new and independent series of numbers to be adopted for such receipts.

3. No certificate is to be issued at the time of entry, nor until the expiration of five years therefrom (see first proviso, sec. 2), except in the case of a sale for the benefit of infant heirs, (second proviso, sec. 2), or where payment in full is made, as provided by section 8, in which cases certificates must be issued.

4. In the case of a sale for the benefit of infant heirs, the certificate (form D, herewith) will issue in the name of the purchaser, upon evidence of sale, made in obedience to a decree or order of a court having jurisdiction in such matters.

5. In a case where full payment is proposed to be made by a party under the 8th section, he must first make proof of settlement and cultivation, as required by existing pre-emption laws and instructions; whereupon you will require his homestead duplicate receipt to be surrendered, and will admit the pre-emption as a new and original entry, and issue pre-emption certificate and receipt, as in ordinary pre-emption cases, returning the same with the monthly abstracts. The register will take care, however, to make a note on the face of the certificate, and the receiver on the receipt, showing the change of the entry from homestead donation to pre-emption purchase under said 8th section.

6. Each entry will be registered in the tract-books in red ink, noting opposite the entry, on the left-hand margin, "H. Act of May 20, 1862," also in red.

7. In reference to the requirement of the 3d section of the act, the register will procure a suitable bound volume, to be denominated "Register of Entries—Homestead Act of May 20, 1862," having ruled columns, showing number of application; date of same; description of tract, with area; name of applicant. The ruled columns of the "Register" should occupy the left-hand page only, reserving the opposite page for "Remarks;" and allowing four lines space for each entry, on which will be noted all particulars in regard to subsequent action, especially in cases of sale for the benefit of infant heirs, and of pre-emption proof and full payment, under section 8.

8. Let the entries in the "Register" be summed up monthly, to correspond with a monthly abstract, which must be returned by the receiver and certified by the register as correct, and as agreeing with the original applications with his "register of Entries." Such returns, of course, to be separate and distinct from ordinary returns of sales and locations.

9. In reference to the compensation—being the commissions of the register and receiver for services under this act, as regulated by the sixth section—the same allowance is to be made as at present on cash entries; that is, each entry is to be estimated as a sale of so much land at $1 25 or $2 50 per acre, and payment made thereon as indicated under the first head in the foregoing.

In order that proper effect may be given to the beneficent provisions of the law, I request your careful observance of those provisions, and the instructions contained in the foregoing.

Very respectfully, your obedient servant,

J. M. EDMUNDS, *Commissioner.*

To the registers and receivers of the United States Land Offices.

(*Form A.*)

HOMESTEAD.

APPLICATION, } LAND OFFICE AT ————,
No.——. } (*Date.*) ———— ,

I, ————, of ————, do hereby apply to enter, under the provisions of the act of Congress, approved May 20, 1862, entitled "An act to secure homesteads to actual settlers on the public domain," the ———— of section ————, in township ———, of range ———, containing ———— acres.

[In pre-emption cases let the following be added: "Having filed my pre-emption declaration thereto on the ——— day of ————."]

LAND OFFICE AT ————,
————, 186 .

I, ———— ——, Register of the Land Office, do hereby certify that the above application is for surveyed lands of the class which the applicant is legally entitled to enter under the Homestead Act of May 20, 1862, and that there is no prior valid, adverse right to the same.

————,
Register.

(*Form B.*)

HOMESTEAD.

(*Affidavit.*) LAND OFFICE AT ————————,
(*Date.*) ————.

I, ————————, of ————, having filed my Application No. ——, for an entry under the provisions of the act of Congress, approved May 20, 1862, entitled "An act to secure homesteads to actual settlers on the public domain," do solemnly swear, that [here state whether applicant is the head of a family, or over twenty-one years of age; whether a citizen of the United States, or has filed his declaration of intention of becoming such; or, if under twenty-one years of age, that he has served not less than fourteen days in the army or navy of the United States during actual war; that he has never borne arms against the government, or given aid and comfort to its enemies; that said Application No. —— is made for his or her exclusive benefit; and that said entry is made for the purpose of actual settlement and cultivation, and not directly or indirectly for the use or benefit of any other person or persons whomsoever.]

Sworn to and subscribed, this ——— day of ————, before

————————,
Register [or Receiver] of the Land Office.

(*Form C.*)

HOMESTEAD.

RECEIVER'S OFFICE, ————————,
(*Date.*) ————.

RECEIVER'S RECEIPT, No. ————. APPLICATION, No. ———.

Received of ———— the sum of ———— dollars —— cents, being the amount of fee and one-half the compensation of register and receiver, for the entry of ———— of section ——— in township ——— of range ———, under the act of Congress, approved May 20, 1862, entitled "An act to secure homesteads to actual settlers on the public domain."

————————,
$———. *Receiver.*

(*Form D.*)

HOMESTEAD.

LAND OFFICE AT ————,
(*Date.*) ———.

CERTIFICATE, No. ——. APPLICATION, No. ——.

It is hereby certified, that pursuant to the provisions of the act of Congress, approved May 20, 1862, entitled "An act to secure homesteads to actual settlers on the public domain," ———— has made payment in full for ——— of section ——— in township ——— of range ———, containing ——— acres.

Now, therefore, be it known, that on presentation of this certificate to the Commissioner of the General Land Office, the said ———— shall be entitled to a patent for the tract of land above described.

————————,
Register.

DEPARTMENT OF STATE,
BUREAU OF IMMIGRATION, WASHINGTON, August 11, 1864.

SIR: In conformity with the act of Congress, entitled "An act to encourage immigration," approved July 4, 1864, the following regulations are established for your government:

1. All contracts that shall be made by emigrants for the United States in foreign countries, whereby such emigrants shall pledge the wages of their labor to repay the expenses of their emigration, shall be submitted to you for your approval in writing. They must conform to the provisions of the act

to encourage immigration, approved July 4, 1864, and no contract will be approved by you unless you have personally satisfied yourself that the emigrants, parties to the contract, have actually arrived in the United States; nor will any be approved by you which may provide for the pursuit of a disloyal or otherwise unlawful or disreputable calling, or which may be at rates of wages which are unreasonably low or improvident All contracts made with emigrants that may not be approved by you will be debarred of the provisions of the second section of the act above referred to. You will keep a registry of all contracts approved by you, stating the names of the parties, the dates of commencement and expiration, the amount of compensation, and other general provisions, and transmit a copy of each to the Department of State for record in the Bureau of Immigration.

2. You will not approve any contract made with emigrants in foreign countries to enter the military or naval service of the United States; and where it is practicable to do so, you will notify each immigrant who may have made such contract that it is void.

3. You will cause notice to be given to immigrants that they cannot be compulsorily enrolled for military service during the existing insurrection, unless they shall voluntarily renounce, under oath, their allegiance to the country of their birth, and declare their intentions to become citizens of the United States; and you will cause to be arrested all persons who, by fraud, shall attempt to compel the involuntary service of immigrants in the army or navy of the United States.

4. You will obtain and record, in books to be kept in your office, accurate returns of all immigrants arriving at the port of New York, stating, as far as practicable, the nationalities of the immigrants; the places from whence they came; the ports from which they departed, and by what vessels; the dates of departure and arrival; the names, sex, age, and professions of the immigrants, and their respective places of destination in the United States. Provisions will also be made for the safe custody of money and valuables of small bulk which may be temporarily deposited by immigrants, and for such custody no fees or charges will be imposed. Letters will be received and forwarded for immigrants, and such other facilities provided as may conduce to their comfort and happiness, without incurring a tax on your office.

5. It will be your duty under the act to make contracts with the different railroad and transportation companies of the United States for transportation tickets to be furnished to immigrants, and to be paid for by them. The transportation of baggage forms a serious item in the expenses of immigrants, and your attention is specially directed to the importance of obtaining the most favorable propositions from railroad companies and other common carriers for this object. Every case of fraud or extortion by agents, runners, etc., you will cause to be punished to the full extent of the law.

6. It is also your duty to see that the provisions of the "passenger acts" are strictly complied with, and all breaches thereof punished according to law. For this purpose you will cause all vessels arriving with emigrants at the port of New York to be carefully inspected, and in every instance in which the acts referred to shall have been violated, you will take the necessary measures to have the owners of such vessels punished.

7. On the first of each month you will transmit to the Bureau of Immigration condensed statements of the arrival of immigrants for the previous month, setting forth their respective nationalities; the ports of departure; the number of each sex, classifying the ages for each five years, the profession, and States of destination.

8. Among the philanthropic and useful organizations of this country, none are more distinguished or have effected greater or more lasting benefit than the New York State Commission of Emigration, nor have there been any conducted with greater wisdom. The eminent services rendered by that commission are recognized by Congress in providing, in the act creating your office, that your duties shall not affect the powers and duties of the Commission of Emigration of the State of New York. The objects of Congress and of that commission are the same, and it will be your aim to act in entire harmony with it, furthering its views as far as may lie in your power, and relying much in your own actions on the experience, wisdom, and integrity of that board.

I am, sir, your obedient servant,

JAMES BOWEN,
Commissioner of Immigration.

JOHN P. CUMMING, Esq.,
Superintendent of Immigration, New York.

Approved.

WILLIAM H. SEWARD,
Secretary of State.

DEPARTMENT OF STATE, BUREAU OF IMMIGRATION,
WASHINGTON, September 1, 1865.

SIR: One year since this bureau instituted inquiries as to the demand for, and the wages paid to, unskilled laborers, mechanics, and artisans in the loyal States, the answers to which were condensed and published in tabular form for the information of immigrants. The close of the civil war and the consequent opening of new fields of labor have rendered these tables, to a great degree, valueless, but it is still desirable that as much practical information on this subject as possible shall be secured.

With this end in view, I would request you to inform this bureau at your earliest convenience—

1. What class of unskilled laborers are most required in your State and neighborhood at the present time, and the average wages paid for the same.

2. What kinds of mechanics or artisans are certain of employment, and the average wages of the same.

3. What means, either by legislative action or private enterprise, have been established to secure the advantages arising from the settlement of immigrants in your midst.

The purpose of obtaining this information is to furnish those about to emigrate to the United States real, practical information, which may lead them to the localities where their labor will be most in demand, and where, in many cases, it is absolutely needed.

A knowledge of all the local organizations established to guard the immigrant from extortion and wrong, and to forward him to his destination with the least possible expense, will enable this bureau to act with intelligence in the work to which it is devoted.

The knowledge, too, of any urgent demand in any particular locality for specific branches of labor will enable this bureau, through the superintendent of immigration at New York and its other agencies, to secure the supply needed.

With respect, I remain your obedient servant,

H. N. CONGAR,
Commissioner of Immigration

To———.

DEPARTMENT OF STATE,
BUREAU OF IMMIGRATION, WASHINGTON, June 11, 1866.

SIR: I have to acknowledge the receipt of your letter of the 2d instant, and of the circular entitled Free Missouri, which you had the kindness to transmit. Please accept the thanks of this Bureau.

I am, sir, etc.,
E. PESTRINE SMITH, *Commissioner.*

HON. ISIDOR BUSH, *Secretary Board of Immigration, St. Louis, Missouri.*

UNITED STATES EMIGRANTS' OFFICE,
No. 3 BOWLING GREEN, NEW YORK, May 11, 1865.

To the Board of Immigration of the State of Missouri:

GENTLEMEN: I have the honor to acknowledge receipt of a letter from the Secretary of your Board, informing me that an act to encourage immigration had been passed by your Legislature, and that the Board had been organized on the 27th ultimo.

I herewith send you a report of the Board of Commissioners of Emigration of this State, also the law to encourage immigration and to regulate the carrying of passengers, and the regulations for the government of this office by the Commissioners of Immigration. I also send you an extract of a letter from the Hon. Bradford P. Wood, minister resident at Copenhagen, in relation to a large immigration of Danes to the United States.

I beg leave to suggest, in order to secure immigration to your State, to send an agent to Denmark; such person to be a native of Denmark, as he would have a readier access to his countrymen than any other person of another nationality. If they could be induced to emigrate to your State in colonies, their spiritual advisers and physician accompanying them, would be greatly to their advantage.

Would you be so good and send me a copy of the act of your Legislature.

I am, very respectfully, your obedient servant.

JOHN P. CUMMING,
United States Superintendent of Immigration.

P. S.—I send you a copy of the reports of the Commissioners of Immigration, which contains the State laws for the protection of emigrants.

LEGATION UNITED STATES, BERLIN, August 24, 1865.

GOVERNOR FLETCHER—*My Dear Sir:* This will be forwarded you by Mr. John James Sturz, with whom I have been acquainted during my entire residence in Berlin. Mr. S. is a gentleman of integrity and talents, with literary qualifications; a constant contributor to, and influential with, the press of Germany. He is thoroughly true to the Union, and has, with his pen, done us good service during the last few years. He understands the subject of emigration, and has for years agitated in Germany in its favor. I know of no one who can use his pen more industriously in spreading among this people proper information. Most any of your leading Germans in your State will know Mr. Sturz at least by reputation. His hostility to slavery is known to all Germany. My belief is that his position and talent would be useful in the business of emigration.

Respectfully, your obedient servant,

N. B. JUDD.

OFFICE MISSOURI STATE BOARD OF IMMIGRATION.
ST. LOUIS, November 24, 1863.

To the honorable County Court of St. Louis county:

Mr. Bittman, agent of this Board of Immigration, informs me that your honorable body have

under consideration an appropriation for the Immigration Fund, and for that purpose desire to have a statement as to the manner in which the funds of this Board have been expended and are to be applied. A condensed statement of Mr. Souper, former Treasurer of the Board, gives the expenses as follows:

Paid for publications, circulars and printing	$1307 40
Paid for advertising	266 00
Paid to agents, traveling expenses, etc	403 70
Paid for wages, freight, postage, etc	347 05
Paid for rent	87 50
Paid for furniture of office	240 70
Total	$2652 35

As Mr. Souper has not rendered a detailed statement, and has never submitted the bills paid by him for approval to the Board, I cannot give a more accurate account; but Mr. Souper has given bond, and holds himself, therefore, responsible, should any of the bills paid not meet the approval of the Board. This statement sufficiently shows, however, how unjust the imputation of big salaries or fat offices against the members or agents of this Board. The only salary paid is to one clerk, and a commission to the agent on the collection of contributions towards the Immigration Fund The office rent was $25, and is now only $10 per month. Many agents have been and are still active traveling, lecturing and corresponding to invite immigration to Missouri, most of them working gratuitously or for a mere trifling contribution toward the expenses connected with their labors; and while the managers of the Hannibal and St. Joseph, and of the North Missouri railroad, with the proper understanding of the importance of such agents, appropriated thousands of dollars for this very purpose, this Board has not been able to do as much as would have been desirable, and even necessary in this respect; yet our few agents, at a cost of about four hundred dollars to the Board, have already induced as many hundred families to make this State their future home. It will be necessary to have agents at some European ports, and especially at New York and New Orleans, to counterbalance the efforts of the States whose agents, by the most liberal offers, endeavor to direct the flow of immigration to them, and divert even those emigrants who arrive with the intent to come here.

To secure efficient agents, and to put in their hands the means of information regarding the advantages of Missouri, funds are required.

It could not be expected that this Board, at the very commencement of its operations, should publish works on Missouri. The best it could do at first, with its limited means, was to support those publications which were being issued by private enterprise. This we have done by taking a few hundred copies of Parker's Missouri Hand-book and of Hertle's—The Germans in Missouri—and distributing them in other States of this Union and in Europe, and encouraging the publication of articles on Missouri in eastern periodicals and the Monats-Hefte, by Caspar Butz.

Mr. Muench is now preparing an excellent German work on Missouri, which is to be published by this Board and distributed in Germany, whence it will bring us thousands of that loyal and industrious class of population, with hundred thousands of capital, and with strong arms to defend, and, if need be, to die for this country.

But this is not all. The Board of Immigration has aroused the public mind to the importance of the subject; auxiliary boards have formed in various parts of the State; letters have been received from public spirited men of almost every county in this State, giving information and offering their kind services to the new comers (one gentleman in Osage county offered to this Board a partly improved farm, free of rent for ten years; a little German congregation in Lafayette county collected several dollars, unsolicited, and sent them to this Board); every land owner feels his interest promoted, and begins to understand the benefits resulting from a larger immigration. Two, at least, of our railroads have consented to pass immigrants on my certificate at half fare, and even the Pacific often consents to do so at my special request. Our Emigrant Aid Society is aided and encouraged by this Board, and would be more so if it had the means. Can't we raise any?

The Department of State in Washington, in a letter to the undersigned, as Secretary of the Board, ask "what is Missouri, what is St. Louis doing for the immigrant? New York is now building an immigrant hospital at an expense of half a million of dollars. Are you, is St. Louis county, so poor as not to be able to assist this noble cause—so important to all?"

Whatever your decision,

I am, most respectfully,

Your honorable body's obedient servant,

ISIDOR BUSH, *Secretary.*

NASHVILLE, TENN., October 18, 1866.

To his excellency Thos. C. Fletcher, Governor of Missouri:

SIR: In accordance with the request of the President and board of directors of the Tennessee Colonial and Immigration Company, I have the honor to submit to you the following inquiries, and request that you have the kindness to have them answered, viz:

1. Is there any company, organized under the laws of Missouri, and having its principal office in the State, now operating in the interests of immigration to that State?
2. Have foreign companies been successful in securing immigrants to Missouri?
3. Has the favorable results attained by the influx of inhabitants been due to any great extent to the operations of such companies?
4. Has the State any statistics on the subject of immigration?
5. Has it any agents to encourage foreign immigrants to settle upon its lands, and has it ever appropriated any money to be used to that end, and how much?

6. Were the results obtained from the aid thus extended such as might be anticipated from such liberal action?

I am quite anxious to ascertain this information at an early day, in order that it may be submitted to the Board previous to the meeting of the Legislature of this State.

I have been informed that your State has at one or more times appropriated funds to further immigration to it, and that statistics of the results have been prepared.

I should like to secure such statistics if they are extant.

You will please excuse my intrusion upon your time, which, I am aware, is well consumed with official duty.

I had no other acquaintance to whom I could apply. You will remember, perhaps, having met me at Philadelphia at the convention.

I have the honor, Governor, to be,

Very respectfully,

AD. M. HEFLEBOWER,

Colonel and Aid de Camp to Governor Brownlow.

OFFICE MISSOURI STATE BOARD OF IMMIGRATION,
ST. LOUIS, MO., November 18, 1866.

Col. Ad. M. Heflebower, A. D. C. to Governor Brownlow, Nashville, Tenn.:

SIR: Your letter of October 18th to Governor Fletcher, on the subject of immigration, has been referred to me, as Secretary of the State Board of Immigration.

Being engaged in preparing the biennial report for said Board, I beg leave to refer you for a more detailed answer to the same, which I shall take pleasure to forward to you as soon as it will appear in print.

You will excuse, therefore, my briefly stating in answer to your inquiries—

1. There is no company, organized under the laws of Missouri, operating or pretending to operate in the interest of immigration. There are here, however, since many years, emigrant aid societies, of purely benevolent character, supported by private, voluntary contributions, and receiving no State aid. This Board is extending to them such facilities and courtesies as is in its power—the free use of their office for meetings, and so forth. The writer of this owes his own appointment to membership of the State Board mainly to his being President of the German Emigrant Aid Society.

2. Foreign companies have established agencies and appointed agents for Missouri, but I know little of their success in procuring immigrants; the only knowledge which we obtained of their results were complaints and disappointments of both employers and immigrants.

3. No favorable results can, in my opinion, be obtained by that kind of immigration which would be brought here by the operation of said companies.

4. This State has no means of obtaining full and reliable statistics on the subject of immigration.

5. The Governor, as President of the Board, appointed agents to encourage foreign immigrants to settle in the State, among those who voluntarily and without pay offered to use their influence with their countrymen and the press in Europe.

6. The money at the disposal of this State Board was and is at present only about $4000 00 per annum; this is mostly expended for publications. It has no salaried officers except one clerk, whose principal business is to aid and advise immigrants, giving them information and procuring employment for them. There is one general agent, receiving a salary of $400 00 per annum, who lectures and writes articles on the resources of Missouri, to secure for her the attention and favorable opinion to which we deem her entitled.

I am, very respectfully,

ISIDOR BUSH, *Secretary.*

This circular, of which the following is an extract copy, was mailed to responsible parties in the different counties of the State. To many replies were received, but a great number was left unanswered. Information was further derived from such correspondence, as followed on the address of the Governor to the people of Missouri, in behalf of immigration, and from the intelligence which the Secretary received on his appeals through the press. The above mentioned circular read as follows:

SIR: You will aid very much the cause of immigration to Missouri by communicating to me such information as you may be able to give, respecting the following points:

1. Are there any United States Government lands subject to entry in your county; if so, how many acres and what is their location and character?

2. Are there any farms partly improved or unimproved, especially land in small quantities, for sale in your county; at what prices; for what purposes best adapted; do parties owning the same offer any special advantages to immigrants and actual settlers?

3. Are professional men, physicians, lawyers, teachers or mechanics, miners and other laborers especially wanted in any of your towns; if so, where?

4. Is there a good opening for the establishment of stores or trades in any of the towns of your county; if so, where and what kind? Is there good waterpower to be had for manufactories?

5. Do large land owners of your county offer any inducement to colonies or persons immigrating in a body; if so, what are they?

Your early answer to the above is urgently solicited, and from the number and character of inquiries received at this office, I can assure you that great benefits to your county and to the State at large, as well as to the thousands intending to immigrate to Missouri, will result therefrom.

A large immigration is coming to our State, and upon the exertion of your county will depend the share of it you will receive. If your time will not permit your attention to this subject, will you please hand it to some reliable public-spirited man of your county who will answer it fully? If necessary, the Board will give a reasonable compensation to yourself or such person as may furnish the desired information.

Yours, very respectfully,

ISIDOR BUSH, Secretary.

The following was published in the Missouri Democrat and in several county papers:

TO ALL WHO DESIRE TO PROMOTE IMMIGRATION.

St. Louis, August 2, 1866.

As Secretary of the Missouri State Board of Immigration, I receive daily many letters of inquiry from persons intending to remove to and settle in Missouri. They look to this Board, and especially to me as its Secretary, for correct and impartial information and advice.

They have heard enough about the rich natural resources, the cheap fertile lands, the great rivers, the bright hopes for the future of this great State; in general, enough to determine them to immigrate to it; but now they want to know where to find the advantages most suitable to their individuality, their peculiar vocations, tastes and circumstances. Agriculturists and others desiring to immigrate in a body, ask what county would offer them special advantages, etc.

To give to each the desired special and full information, it is desirable that reliable persons, well acquainted with the peculiar resources of their section and neighborhood, with the advantages which their place would offer, especially to certain classes, professions or vocations; that persons who would offer, or know others inclined to offer, fertile lands at low rates, or on easy terms, or under peculiar favorable arrangements to immigrants or settlers from other States or from Europe, should give full information in writing to the undersigned. No charge whatever will be made, neither to immigrants nor to landowners; and in any case where an agent in charge of land gives the desired information, and such land is then purchased with the advice of this office, he shall be entitled to his proper commission, and neither my clerk nor I, myself, shall accept any part thereof.

The communications so received will be carefully registered, examined, and given to those in want of it.

There are hundreds now waiting for information. By acting liberally and giving some inducements, many counties could double within less than two years their population, and every inhabitant could more than double the value of the balance of his property.

ISIDOR BUSH,
Secretary Missouri State Board of Immigration.

The reports so received have been condensed and entered into the record book for reference:

Adair County.—No government lands are left for entry, but many farms of different sizes are for sale, and could be had at from four to twenty-five dollars an acre. There is a large amount of unimproved land, which sells at from two to ten dollars an acre. The soil is well adapted for all farming purposes, and the water good.

W. L. GRIGGS,
Kirksville, Adair County.

Atchison County.—The Missouri bottom, extending the entire length of the county, is most admirably adapted to farming purposes. The larger part of it is unimproved, and sells at from five to ten dollars an acre. Improved lands can be bought at from ten to twenty-five dollars per acre. The balance of the county, gently rolling prairie, beautifully interspersed with timber, is excellent for stock raising and general farming. Prairie land convenient to timber sells at from two to five dollars an acre. Water is plenty and good. There would be a good opening for nearly any kind of business, and there is no doubt that all would thrive splendidly.

L. P. CUNNINGHAM,
Rocheport, Atchison County.

Barton County.—The lands are smooth rolling prairie, except along the streams, where the best of timber is to be found in abundance. Corn, wheat, oats, etc., and the different grasses grow very well. Fine stone quarries are found in many places. The lands are generally in large bodies, and are considered by experts as some of the best in the State for stock raising; they sell at from two dollars and fifty cents to five dollars an acre. Water can easily be had.

NATHAN BRAY,
Mount Vernon, Barton County.

Bollinger County.—There are government lands for entry. The soil is generally poor and rocky. Farms partly improved average from two dollars and fifty cents to ten dollars an acre. There would be an excellent opening for a steam-mill at Dallas, the county seat, and a physician, a lawyer and a teacher are likewise wanted at that place.

PHILIP SUTHERLIN,
Dallas, Bollinger County.

Boone County.—The lands are adapted for nearly any purpose a farmer might wish to engage in. Hemp and tobacco, corn, wheat, grasses and grapes are raised in abundance. Land is for sale in large and small bodies, prices ranging from five to forty and fifty dollars an acre. The market facilities are good; the North Missouri railroad being on one side, and the Missouri river and the Pacific railroad on the other. Loyal teachers and mechanics of every description are wanted at

Columbia, Rockport and Sturgeon; laborers everywhere. A good woolen factory would do well at Columbia. Well conducted schools are at the county seat, where the youth can get a good education at a small cost.

J. B. DOUGLAS,
Columbia, Boone County.

CALDWELL COUNTY.—Unimproved lands—in private hands—sell at from two dollars and fifty cents to ten dollars an acre. Small farms partly improved bring from six to twenty dollars an acre. Mechanics are wanted at the county seat.

JOHN L. ROSS,
Plattsburg, Clinton County.

CAMDEN COUNTY.—A large quantity of United States Government land is subject to entry. It is generally high, or what if termed ridge land, but experience has proven it well adapted to the culture of wheat, corn, grass, clover and other produce. Small tracts of land—improved and unimproved—can be purchased at, respectively, from two dollars and fifty cents to ten dollars an acre. Lawyers and physicians can find profitable locations in the western portions of this and the eastern part of Benton county. Several teachers, and professional men generally, are wanted. Miners could open successful lead mines, as the metal is found in paying quantity in many places. Mills and stores are wanted. The Big and Little Niangua rivers furnish the finest waterpower that might be desired.

WM. N. HARRISON,
Lum Creek, Camden County.

CAPE GIRADEAU COUNTY.—There are no government lands subject to entry. There are farms partly, and others well improved, in large and small quantities, with prices ranging from five to one hundred and fifty dollars per acre for sale. The soil is most excellent and well adapted to corn, wheat, tobacco and cotton, the rolling lands producing wheat, oats, cotton and light tobacco, and the bottom lands corn, sorghum and grass; wheat, corn and hay are, however, the principal agricultural products. Physicians and lawyers are not in great demand, but mechanics and laborers are wanted. The supply of mills and workshops is not sufficient, and no better place to open manufactories could be found. Waterpower is enough for any milling or manufacturing purpose, and is everywhere convenient. The city of Cape Girardeau is rapidly increasing in population and wealth, as much enterprise is shown by its business men.

WM. ARTHUR,
Cape Girardeau, Cape Girardeau County.

CARROLL COUNTY.—The soil is fertile, partly prairie, thickly interspersed with timber, partly woodland. Hemp, tobacco, corn, wheat and all other produce grow very well and in fine quality. Mechanics, as, machinists, blacksmiths, carpenters, tinners, etc., are wanted, and would do particularly well at the town of Dewitt, on the Missouri river.

H. HOLLOWAY.
Dewitt, Carrol County.

CEDAR COUNTY.—No valuable government lands are subject to entry. Many small and large farms, adapted to raising all kinds of grain and grasses, are cheap for sale. Experience shows it to be one of the best tobacco growing counties in the State. Professional men, teachers, physicians, miners and mechanics of all kinds, are wanted. There is a good opening for manufactories, tanners, shoemakers and saddlers. The number of large landholders is not great. The county, having suffered heavily by the war, needs immigration to fill up the depleted population, and all honest and loyal men will be kindly received, and find it in their interest to settle there.

D. H. CONNAWAY,
Stockton, Cedar County.

CHRISTIAN COUNTY.—There is a considerable amount of government lands subject to entry, some of which is good timber and farming land. Partly improved farms can be bought at from three to five dollars an acre. Wheat, tobacco, cotton and sorghum grow very well. A few lawyers, several teachers and mechanics of any kind are needed. Tanneries and portable sawmills would do a thriving business. There is waterpower enough for any manufacturing purpose. With the exception of the mineral lands, the land is generally owned in small bodies. For sheep raising the county is known as one of the very best of the State.

J. M. PETTIJOHN,
Ozark, Christian County.

CLINTON COUNTY.—There are no government lands subject to entry. Farms partially improved can be bought at from $5 to $15 per acre, unimproved at from $4 to $5 per acre. The soil is good, and well adapted to any farming purpose. Mechanics and laborers are wanted, but no lawyers nor doctors needed. The lands are mostly held in small bodies.

J. V. BASSETT,
Plattsburg, Clinton County.

COOPER COUNTY.—There are no Government lands subject to entry, but swamp lands can be purchased very low from the county. Improved farms sell from $10 to $30 an acre, unimproved from $4 to $15 per acre. The soil is best adapted to producing wheat, corn, oats, potatoes, tobacco, grasses, and some portions hemps and all kind of garden vegetables. The grape is successfully cultivated in and around Boonville. Some 15 or 20 teachers and a few physicians are needed. Other professional men, mechanics and laborers are, at least for the present, in no great demand.

HENRY C. LEVENS,
Boonville, Cooper County.

CRAWFORD COUNTY.—There is a considerable quantity of government lands subject to entry, well adapted to farming and stock raising. Farms unimproved and improved can be had at from $1 to $10 per acre. The soil throughout the county recommends itself for any farming purpose; timber, water and minerals are everywhere, and all that is wanted are enterprising immigrants to develop our resources.

J. G. ANDERSON,
Crawford County.

DALLAS COUNTY.—A large amount of government land is subject to entry. Lands partially improved can be had at from $3 to $10 per acre. The county is divided between prairie and timber, with excellent water everywhere. Mills, manufactories and mechanics are very much needed. The population is very sparse, and some 10,000 immigrants could yet find a comfortable and prosperous home.

A. B. MADDAUX,
Buffalo, Dallas County.

DEKALB COUNTY.—No government lands are subject to entry. Farms, great and small, are cheap for sale; the soil is well adapted to grow any agricultural produce that may be raised in our climate. Merchants and mechanics are wanted. The waterpower is sufficient for any manufacturing purpose.

GREEN COUNTY.—There are government lands subject to entry, partly consisting of prairie, partly of timber, and generally good. Farms partly improved sell for five to fifteen dollars per acre. Mechanics are wanted at Neosho, Lebanon, Melville and other places. The waterpower is good, and manufactories of any kind will find a good opening.

HARRISON COUNTY.—There are some government lands subject to entry, but their quality cannot be considered as of the best. Large and small farms are for sale at prices ranging from five to fifteen dollars per acre. The soil is well adapted to all farming purposes. Men of all professions are much needed, especially smiths, wagon-makers, carpenters and miners. The water-power is good, and a woolen factory would do very well. Hardware and leather stores are wanted, and a flouring mill is greatly needed.

HENRY O. BRYANT,
Bethany, Harrison County.

HICKORY COUNTY.—The land being about equally divided between prairie and timber, offers fine advantages to the farmer and stock. Minerals, and especially lead ore, are found every where. Land, improved and unimproved, sells very cheap.

J. C. MONTGOMERY,
Elkton P. O., Hickory County.

HOLT COUNTY.—There are no government lands subject to entry. Partly improved farms, well adapted for all agricultural purposes, can be bought at from five to fifteen dollars per acre. Mechanics are wanted—stores enough. There is sufficient waterpower for manufactories, which would find a good opening, and prosperous future.

CLARK IRVINE,
Oregon Holt County.

HOWARD COUNTY.—There is no government land for entry. Improved farms, well adapted to the growth of hemp, tobacco, wheat, corn, oats, etc., sell for five to sixty dollars per acre. Grasses, fruits and grapes grow luxuriantly. Neither lawyers nor physicians are needed, but mechanics and laborers could find employment. Good teachers well qualified are needed. Carpenters, wagon-makers and plow-makers would do very well at Glasgow and some other places. The lands are generally not held in large bodies.

A. J. HERNDON,
Fayette, Howard County.

JEFFERSON COUNTY.—There are government lands subject to entry. Partly improved farms and unimproved land can be had at very reasonable prices. The soil is well adapted for any farming purpose, but especially for growing fruit and grapes. Teachers, mechanics and miners are needed everywhere, but the opening of stores and trades would not be advisable, as there are enough of them for the present wants. The waterpower of the county is good, and more as sufficient for all manufactories that might be established.

B. W. McMULLEN,
Hillsboro, Jefferson County.

IRON COUNTY.—There is a considerable amount of government land left subject to entry, but not of the best quality for general farming purposes. although fruit and grapes grow to perfection. The mineral wealth of the county is well known all over the United States, and is generally conceded to be inexhaustible, especially in iron ore. Skillful mechanics, miners and laborers find always employment. There is sufficient waterpower for all manufacturing wants.

RICHARD T. TROW,
Ironton, Iron County.

LIVINGSTON COUNTY.—There are no government lands subject to entry. Farms partly improved sell at very moderate prices. The soil is good for growing any of the agricultural staples of our climate. Mechanics, as carpenters, wagonmakers, masons, etc., are needed, and common laborers can find employment, whenever they want it. There are good openings at Chillicothe for any kind of business, as the population of the county is rapidly increasing. Waterpower for manufactories is good in that portion through which the Grand River runs.

MARIES COUNTY.—There is very little government land left subject to entry, and even this is of no very good quality. Farms partly improved sell at very low prices, say from two to ten dollars per acre. Teachers, mechanics and laborers are wanted at Vienna and throughout the county. Stores and trades would find a good opening at Vienna and the other villages. The waterpower is good, and manufactories are needed.

THOS. J. ELLIS,
Vienna, Maries County.

MONTGOMERY COUNTY.—There are no government lands for entry. Partly improved farms sell for eight to twenty dollars per acre. The soil is adapted to the raising of every kind of grain and fruit peculiar to the western country. About one-third of our county, including the southern portion, would grow fine grapes. The culture of tobacco is very profitable. Teachers, mechanics, miners and other laborers are wanted at the various towns, viz: Danville, New Florence, Montgomery City, Wellsville and High Hill, and by a majority of the farmers. There are good openings in the county for mercantile and agricultural stores, especially in the town of Danville. For manufacturing purposes there can be found sufficient waterpower in many places.

L. J. McNEILE.
Danville, Montgomery County.

NODAWAY COUNTY.—There are some government lands subject to entry, although most of them are not priced very highly. Farms partly improved can be bought for seven to fifteen dollars per acre. Corn, wheat, oats, tobacco and all other western agricultural produce is raised in a very good quality. Teachers, mechanics, and laborers are wanted, and can find employment at any time. Lawyers and physicians are enough for the present population. There are good openings for merchants and manufacturers. Flouring and saw mills are badly needed. The Nodaway, Platte and many other rivers give as much water power as may be desired for any purpose. Large land owners are not very numerous, and even those are willing to partition their possessions, and sell them out under reasonable conditions, and at cheap prices.

COOVER & FORD,
Maryville, Nodaway County.

OREGON COUNTY.—There are some government lands subject to entry, all of which, that are considered of any value, are limited to one township. Farms unimproved and improved sell respectively for from one to ten dollars per acre. All agricultural products of our climate grow very well, fruit and grapes included. The county has suffered heavily during the war, and is therefore greatly in need of an industrious loyal immigration.

WOODSIDE & OLD,
Thomasville, Oregon County.

OSAGE COUNTY.—There are no government lands subject to entry. Large and small farms, partly improved, sell at very moderate prices. The soil is chiefly adapted to small grain, tobacco, and fruits of all kinds, particularly to the latter. Tradesmen, as tailors, shoemakers, blacksmiths, etc., would find ample employment in Linn, and laborers throughout the county. A saw and grist mill is badly needed, and an enterprising business man who would undertake to build one at or near the county seat could soon make a fortune. There are some large land owners, but not many.

G. H. HOPKINS,
Linn, Osage County.

PEMISCOT COUNTY.—No government lands are for sale. Good land, in any quanties, but unimproved, can be bought for one dollar twenty-five cents and upward per acre. The soil is well adapted to raising corn, cotton, tobacco, and all garden vegetables. Stock raising is connected with little or no expense, as our richness of grass and cane may meet any demand for feed. Physicians, lawyers, teachers and mechanics are wanted at Gayoso, Caruthersville, and other villages of the county. One or two general country stores might do well in each of the above named places.

W. H. SPENCER,
Gayoso, Pemiscot County.

RANDOLPH COUNTY.—The soil is not as rich as in some other couties, but, nevertheless, very productive. Corn, oats, hay, and tobacco are generally raised in much abundance, and rye is never-failing. Partly improved farms sell at from eight to thirty dollars per acre, unimproved for two dollars and fifty cents to ten dollars per acre. They can be had, large or small sized, in any quantity. Steam mills are badly needed at Huntsville, and would be liberally encouraged by the inhabitants.

W. R. SAMUEL,
Huntsville, Randolph County.

RIPLEY COUNTY.—There is a considerable amount of government land subject to entry. The county being traversed by rocky ridges offers, nevertheless, good advantages for stock raising, especially sheep. Farms partly improved can be had for one dollar and fifty cents to three dollars per acre. The county has suffered deeply by the war, and needs an industrious and loyal immigration.

G. W. HUTCHERSON,
Doniphan, Ripley county.

SALINE COUNTY.—There are no government lands subject to entry. Plenty of improved farms in quantities to suit purchasers, are for sale, and prices range at from ten to thirty-five dollars per acre. The soil is of the first quality. Corn, wheat, tobacco, hemp (the latter the principal staple), all vegetables and a variety of fruits are raised in abundance throughout the county. Teachers, mechanics and laborers are especially wanted in New Frankfort and Miami—new towns, but improving rapidly. Some merchants and manufacturers would find a good opening at the same

places, as there is but little competition. There is no waterpower of any account. The lands are generally held in large bodies, but the owners are very willing to sell out at moderate prices.

JOHN KEPPLER,
New Frankfort, Saline County.

St. Francois County.—Small and large farms, partly improved, are for sale at very moderate prices. From ten to thirty dollars per acre is asked. The soil is good and well adapted to the growing of the staples of the west. Teachers, mechanics and laborers are wanted, and can find employment at any time.

RUFUS ALEXANDER,
Farmington, Missouri.

Ste. Genevieve County.—There is considerable land subject to entry in various parts of the county adapted for farming, grazing, fruit-growing and stock-raising. There are a good many farms, partly improved, and pieces of unimproved lands, for sale in small parcels and quantities, varying in price from $6 to $15 per acre. The soil is good, and yields plentiful harvests in grain and grasses of every kind. Promising openings for storekeepers and tradesmen are in considerable numbers, and laborers are wanted all over the county. Good water power for manufacturing purposes may be found in various parts, but it is, as yet, not made use of. The land is nearly generally held in small bodies, and is offered freely for sale at moderate prices.

SAM'L H. GUTHRIE.

Wayne County.—There is but very little government land subject to entry, most of it having been sold prior to the war. Many farms, partly improved, are for sale; the soil is good, and well adapted for all farming purposes. All kinds of grain and grasses grow in abundance. Stock, as horses, mules, cattle, etc., grow remarkably large and powerful. Water is good and plentiful everywhere. Until the railroad is not finished further to the limits of the State, there is not much need in this county of professional men and laborers. The land is generally held in small quantities, and sells at very moderate prices.

W. T. LEEPER.

LIST OF HONORARY MEMBERS

AND OF

CONTRIBUTORS TO THE IMMIGRATION FUND.

List of honorary members of the Board of Immigration.

Name.	Residence.
W. C. Lange	St. Louis, Missouri.
George Husmann	Hermann, do
George Muench	Augusta, do
Joseph Crashar, senior	St. Louis, do
Joseph Crashar, junior	do do
Charles Hug	St. Charles, do
Josiah Pratt	do do
J. F. Schroer	do do
Martin W. Willis	Quincy, Illinois.
John H. Fisse	St. Louis, Missouri.
George R. Taylor	do do
Emil Pretorius	do do
Theo. Plate	do do
Heinrich Binder	do do
Charles J. Palme	do do
Hermann Lindemann	St. Charles, do
Gustavus Heinrich	St. Joseph, do
Ph. Bliss	do do
Jos. Schreiber	do do
Joh. Bayer	do do
Thos. E. Souper	St. Louis, do

List of contributions to the Immigration Fund collected by Thomas E. Souper, Esq., for which di lomas have been issued.

No.	Name.	Residence.	Date of Diploma.	Amount.
1	Louis Rohrer	St. Louis, Missouri	June 30, 1865	$10 00
2	Excelsior Insurance Company	"	August 10, 1865.	100 00
3	Geo. S. Harris	Hannibal	August 14, 1865.	5 00
4	J. I. Ricbarts & Son	St. Louis, Missouri	August 14, 1865.	5 00
5	D. Proctor	Mooresville, Mo	August 17, 1865.	5 00
6	Thos. J. Albright	St. Louis, Missouri	August 18, 1865.	5 00
7	Dr. T. Schade	"	August 21, 1865.	5 00
8	Dr. S. Pollack	"	August 21, 1865.	5 00
9	Jos. R. Winchell	Hannibal, Missouri	August 23, 1865.	5 00
10	E. H. Chamberlain	Paducah, Ky	August 30, 1865.	5 00
11	John V. Hilbert	Hannibal, Missouri	Sept. 5, 1865	5 00
12	E. Hagerty & Bro	St. Louis, Missouri	Sept. 11, 1865	5 00
13	Barnum, Tenner & Co	"	Sept. 11, 1865	5 00
14	Cavender & Rowse	"	Sept. 12, 1865	20 00
15	D. A. January	"	Sept. 12, 1865	5 00
16	John T. Schiefer	"	Sept. 12, 1865	5 00
17	Louis P. Eber	"	Sept. 12, 1865	5 00
18	D. A. Blake	"	Sept. 12, 1865	20 00
19	John Moore	Salem, Illinois	Sept. 14, 1865	5 00
20	County Court of	Howard, Missouri	Sept. 27, 1865	100 00

List of contributions to the Immigration Fund, collected by Mr. John Bittman, for which diplomas have been issued.

No.	Name.	Residence.	Date of Diploma.	Amount.
1	United States Savings Institution	St. Louis, Missouri	July 11, 1865	$100 00
2	Julius Conrad	"	"	20 00
3	James Taussig	"	"	20 00
4	Adolphus Meyer	"	"	20 00
5	Samuel Knox	"	"	20 00
6	H. A. Homeyer	"	"	25 00
7	William Taussig	"	"	15 00
8	Horatio Wood	"	"	10 00
9	J. P. Camp	"	"	10 00
10	J. H. Lightner	"	"	10 00
11	M. J. Lippmann	"	"	10 00
12	A. Krekel	"	"	10 00
13	Kuntz & Hoffmeister	"	"	10 00
14	John C. Vogel	"	"	10 00
15	F. Schucdding	"	"	10 00
16	Weiss & Henner	"	"	10 00
17	C. C. Fritschle	"	"	10 00
18	Dr. John Hartmann	"	"	10 00
19	Melsheimer & Lavo	"	"	10 00
20	Coste & Leussler	"	"	10 00
21	Louis Rohrer	"	"	10 00
22	Schuster & Schweickhardt	"	"	10 00
23	Taussig & Fischer	"	"	10 00
24	Geo. Schlosstein	"	"	10 00
25	E. G. Obear	"	"	10 00
26	Gustav Hacber	"	"	10 00
27	R. B. Bonner	"	"	10 00
28	H. T. Vahlkamp	"	"	10 00
29	M. E. Suschitzky	"	"	5 00
30	Adolph Ehlert	"	"	5 00
31	Charles Vallat	"	"	5 00
32	Joseph Gebhardt	"	"	5 00
33	Joseph Halm	"	"	5 00
34	L. D. Morse	"	"	5 00
35	A. I. Schneidacke	"	"	5 00
36	F. A. H. Schneider	"	"	5 00
37	J. McNeil	"	"	5 00
38	Koehler & Barth	"	"	10 00
39	G. Rothweiler	"	"	5 00
40	C. A. Huber	"	"	5 00
41	G. A. Pfau	"	"	5 00
42	L. Koch	"	"	5 00
43	Balmer & Weber	"	"	5 00

List of contributions to the Immigration Fund collected by Mr. F. M. Schinkowsky, Special Agent, for which diplomas have been issued.

No.	Name.	Residence.	Date of Diploma.	Amount.
1	Julius Winkelmeier	St. Louis, Missouri	November 1, '65.	$20 00
2	John D. Mayer	"	"	20 00
3	Joseph Uhrig	"	"	20 00
4	Felix Coste	"	"	10 00
5	Theodore Wiener	Carondolet City, Mo	"	10 00
6	Christian Ploeser	St. Louis, Missouri	"	10 00
7	Henry Kunz	"	"	10 00
8	Louis Schlosstein	"	"	5 00
9	Christian Staehlin	"	"	10 00
10	Charles Salomon	"	"	5 00
11	Nicholas Schittner	"	"	5 00
12	William Stumpf	"	"	5 00
13	Hermann Bachmann	"	"	5 00
14	George Damde	"	"	5 00
15	Louis Espenschied	"	December 1, '65.	5 00
16	Conrad Pfister	"	"	5 00
17	Jacob Kern	"	January 1, 1866.	25 00
18	William A. Lemp	"	"	20 00
19	August Leisse	"	"	10 00
20	Gustav W. Dreyer	"	"	10 00
21	G. A. Lutz	"	"	10 00
22	H. Grone	"	"	10 00
23	H. H. Helmcamp	"	"	10 00
24	John G. Biedermann	"	"	10 00
25	John F. Stuck	"	"	10 00
26	E. Beckmann	"	"	10 00
27	Ferdinand Kammerzell	"	"	10 00
28	Florian Mueller	"	"	10 00
29	John Olfermann	"	"	10 00
30	Theobald Eckerle	"	"	10 00
31	Constantin Schnerr	"	"	10 00
32	Henry Stussel	"	"	10 00
33	Ph. A. Hartmann	"	"	10 00
34	Henry Steinmeyer	"	"	10 00
35	Emil Schoenemann	"	"	10 00
36	Samuel Tirmenstein	"	"	10 00
37	Jacob Blattner	"	"	10 00
38	C. Wm. Thiel	"	"	10 00
39	G. W. Woltmann	"	"	10 00
40	Wm. Scholten	"	"	10 00
41	Henry Meiers	"	"	10 00
42	Peter Weber	"	"	10 00
43	Fr. G. Niedringhaus	"	"	10 00
44	August Wetekamp	"	"	5 00
45	Philip Weigel	"	"	5 00
46	Charles Hufnagel	"	"	5 00
47	Franz Schindler	"	"	5 00
48	Wilhelm C. Beckmann	"	"	5 00
49	Henry Grossenheider	"	"	5 00
50	Charles Strittmatter	"	"	5 00
51	Francis Laitner	"	"	8 00
52	Andreas Geissel	"	"	5 00
53	Bernhard Lager	"	"	5 00
54	Jacob Gruen	"	"	5 00
55	Julius Grossenheider	"	"	5 00
56	Jacob Chr. Freund	"	"	5 00
57	Andreas Kolb	"	"	5 00
58	John Bebie	"	"	5 00
59	Jacob Westermann	"	"	5 00
60	Michael Goettler	"	"	5 00
61	Charles Breckman	"	"	5 00
62	Moses Heller	"	"	5 00
63	Wendelin Kiemel	"	"	5 00

LIST OF CONTRIBUTIONS—CONTINUED.

No.	Name.	Residence.	Date of Diploma.	Amount.
64	Henry Stamm	St. Louis, Missouri	January 1, 1866.	$ 5 00
65	John B. Fleitz	"	"	5 00
66	Conrad Seibel	"	"	5 00
67	Jacob Vogel	"	"	5 00
68	Ferdinand Glaser	"	"	5 00
69	Jacob Klein	"	"	5 00
70	Louis Scherzinger	"	"	5 00
71	Charles W. Schickenberg	"	"	5 00
72	Charles Timmermann	"	"	5 00
73	John H. Burkhardt	"	"	5 00
74	William Schlumpf	"	"	5 00
75	Louis Spelbrink	"	"	5 00
76	John C. Kaiser	"	"	5 00
77	Julius Morisse	"	"	5 00
78	Ernest Witte	"	"	5 00
79	Fr. Laumann	"	"	5 00
80	Elias Kuehn	"	"	5 00
81	Gustav F. Leebold	"	"	5 00
82	Theodor Welge	"	"	5 00
83	Bernhard Brockmann	"	"	5 00
84	Henry Scheele	"	"	5 00
85	August Mauch	"	"	5 00
86	Henry Amelung	"	"	5 00
87	Haver Ernst	"	"	5 00
88	Jacob Felber	"	"	5 00
89	John G. Stuckstede	"	"	5 00
90	Henry Stuckstede	"	"	5 00
91	Fr. Steigerwald	"	"	5 00
92	Christian Altenbernd	"	"	5 00
93	John Keppler	"	"	5 00
94	Albert E. Sander	"	"	5 00
95	F. Wander	"	"	5 00
96	Henry Ruhlmann	"	"	5 00
97	William Ehlert	"	"	5 00
98	Otto Oeters	"	"	5 00
99	Christopher Lutter	"	"	5 00
100	August Michael	"	"	5 00
101	Theophile Weber	"	"	5 00
102	F. W. Noel	"	"	10 00
103	Pr. Schroeter	"	"	5 00
104	William Salmering	"	"	5 00
105	John A. Beiring	"	"	5 00
106	Jacob Jost	"	"	5 00
107	G. Ost	"	"	5 00
108	Michael Foerster	"	"	5 00
109	Charles Rier	"	"	5 00
110	Melchior Falkenheiner	"	"	5 00
111	Charles Cronenbold	"	"	5 00
112	Adolph Busch	"	"	5 00
113	Anton Dreste	"	"	5 00
114	Lorenz P. Fries,	"	"	5 00
115	Ferd. Weichmann	"	"	5 00
116	Richard Reichenbach	"	"	5 00
117	Friederich Walter	"	"	5 00
118	Ernst Schmidt	"	"	5 00
119	John Schenk	"	"	5 00
120	Adolph Pfau	"	"	5 00
121	Charles Fritz	"	"	10 00
122	Charles Blank	"	"	5 00
123	William Niedringhaus	"	"	10 00
124	August Ockel	"	March 15, 1866...	5 00
125	Fred. Gaubatz	"	"	5 00
126	Louis Goebel	"	"	5 00
127	Conrad Toechter	"	"	5 00
128	Fr. Michaus	"	"	5 00
129	Leonhard S. Bargen	"	"	5 00
130	Henry A. Meyer	"	"	5 00
131	Herman Bromschwig	"	"	5 00
132	Fr. Wm. Meyer	"	"	5 00
133	John Christophel	"	"	5 00
134	Fr. Haase	"	"	5 00

LIST OF CONTRIBUTIONS—CONTINUED.

No.	Name.	Residence.	Date of Diploma.	Amount.
135	Gerhard Henry Bayer	St. Louis, Missouri	March 15, 1866	$ 5 00
136	Charles Tipf	"	April 1, 1866	5 00
137	Philip Becker	"	"	5 00
138	Francis Schultz	"	"	5 00
139	Henry Hildenbrandt	"	"	5 00
140	Theodor Strauss	"	"	5 00
141	Edward Bersch	"	"	5 00
142	Valentine Riedel	"	"	5 00
143	Edward Fr. Rethwilm	"	"	5 00
144	John Haas	"	"	5 00
145	Michael Voepel	"	"	5 00
146	Louis Seitz	"	"	5 00
147	David Hirschi	"	April 20, 1866	25 00
148	Louis Schulenburg	"	May 1, 1866	5 00
149	Leo. Dierberger	"	"	5 00
150	A. W. Eberhard	"	"	5 00
151	Julius Spengler	"	"	10 00
152	Fred Miche	"	"	5 00
153	William Nordmann	"	"	5 00
154	J. A. Schrebels	"	"	5 00
155	Mathias Stoltman	"	"	5 00
156	Jacob Schadt	"	"	5 00
157	Joseph Buttner	"	"	5 00
158	Hermann Diepenthal	"	"	5 00
159	William Batzen	"	"	5 00
160	Theodore Heitzeberg	"	"	5 00
161	Christian Koch	"	"	5 00
162	George Miller	"	"	5 00
163	Martin Gropp	"	"	2 00
164	John Hezel	"	"	10 00
165	Joseph Kellermann	"	"	5 00
166	George Graff	"	"	5 00
167	Matthias Spœrg	"	"	5 00
168	Gustav Meyer	"	"	5 00
169	Jacob Schweizer	"	"	5 00
170	Joseph Hepp	"	"	5 00
171	T. Blangow	Weston, Missouri	"	5 00
172	Silvester Merstetter	Boonville, Missouri	"	10 00
173	A. Brauchmann	St. Louis, Missouri	"	5 00
174	August Haase	"	"	5 00
175	Fr. Ritschy	"	"	5 00
176	Charles Rooswag	"	June 1, 1866	5 00
177	Adam Haessel	"	"	5 00
178	Theodore Schwenlaw	"	"	5 00
179	C. W. Rudolph	Holden, Missouri	"	5 00
180	J. A. Eppstein	Boonville, Missouri	"	10 00
181	F. W. Ludwig	"	"	5 00
182	J. Fetzer	"	"	5 00
183	Hermann Griesmeier	"	"	10 00
184	J. B. Kaiser	"	"	5 00
185	Jacob Berger	"	"	5 00
186	Albert Duemler	Cottleville, St. Charles Co	"	10 00
187	C. Kaufmann	Boonville, Missouri	"	10 00
188	V. Eppstein	"	"	10 00
189	M. Wilkom	"	"	5 00
190	John G. Nerman	"	"	5 00
191	Bernh. Tonming	"	"	10 00
192	John P. Neef	"	"	5 00
193	Philip Back	"	"	5 00
194	A. C. Widdicomb	"	"	5 00
195	G. W. Brachman	"	"	5 00
196	J. S. McFarland	"	"	5 00
197	C. F. Æhle	"	"	5 00
198	George Miller	"	"	5 00
199	J. P. Blankenmeister	"	"	5 00
200	F. W. Gross	"	"	5 00
201	Joseph Weber	"	"	5 00
202	John Bernhard	"	"	5 00
203	Joseph Sanger	"	"	5 00
204	Peter Back	"	"	5 00
205	Charles Gross	"	"	5 00

LIST OF CONTRIBUTIONS—CONTINUED.

No.	Name.	Residence.	Date of Diploma.	Amount.
206	Ernst Rœschel	Boonville, Missouri	June 1, 1866	$5 00
207	John Bœhm	"	"	5 00
208	Peter Smith	"	"	5 00
209	Lorenz Geiger	"	"	5 00
210	Henry Elliott	"	"	5 00
211	Nic. Walz	"	"	5 00
212	P. S. McFadden	"	"	5 00
213	H. E. Rochester	"	"	5 00
214	H. Winkelmeyer	"	"	5 00
215	L. Vollrath	"	"	5 00
216	Caspar Mænger	"	"	5 00
217	B. Stuckert	"	"	5 00
218	A. Eckhardt	"	"	5 00
219	M. G. Wertheimer	"	"	5 00
220	J. G. Stephens	"	"	10 00
221	Christ. Gratz	"	"	5 00
222	Charles Fuchs	"	"	5 00
223	Nic. Vollrath	"	"	5 00
224	Geo. Vollrath	"	"	5 00
225	Ernst Lamy	"	"	5 00
226	A. C. Banoe	"	"	10 00
227	C. W. Sombart	"	"	10 00
228	Wolfgang Dornberger	Hamburg, Scott County	September 30, '66	5 00
229	Charles Messmer	"	"	5 00
230	Dr, George Schols	"	"	5 00
231	David Holden	"	"	5 00
232	Francis Haring	"	"	5 00
233	Louis Dannenmuller	Kelsotown, Missouri	"	5 00
234	Theodore Bruere	St. Charles, Missouri	November 30, '66	10 00
235	Gustav Bruere	"	"	10 00
236	H. H. Maertens	"	"	6 00
237	T. W. Gatzweiler	"	"	6 00
238	Charles Hug	"	"	5 00
239	William Hasser	"	"	5 00
240	George H. Senden	"	"	5 00
241	Louis Veil	"	"	5 00
242	Christoph Wecke	"	"	5 00
243	John E. Bruere	"	"	5 00
244	J. F. Dierken	"	"	5 00
245	Francis Oberkotten	"	"	5 00
216	J. C. Orrick	"	"	5 00
247	W. W. Edwards	"	"	5 00
248	Francis Kremer	"	"	5 00
249	George Own	"	"	5 00
250	Jacob Zeisler	"	"	5 00
251	Peter Hansan	"	"	5 00
252	Eiserer & Fahlsteik	"	"	5 00
253	H. Johanpetter	"	"	5 00
254	George A. Klinger	"	"	5 00
255	H. D. Mayer	"	"	5 00
256	Fr. Buchmann	"	"	5 00
257	V. Becker	"	"	5 00
258	Mrs. L. Schaeffer	"	"	5 00
259	Philip Zalemann	"	"	5 00
260	David Pinger	St. Joseph, Missouri	December 15, '66	25 00
261	John Pinger	"	"	20 00
262	Joseph Knohle	"	"	20 00
263	Albert Andriam	"	"	15 00
264	Joseph Pfeifer	"	"	10 00
265	Louis Hase	"	"	10 00
266	Dr. Berghoff	"	"	10 00
267	I. Mentzel	"	"	10 00
268	Ch. E. Friederich	"	"	10 00
269	Aug. Saltzman	"	"	5 00
270	Con. Saltzman	"	"	5 00
271	John Demont	"	"	5 00
272	Fr. Dall	"	"	5 00
273	John Kiefer	"	"	5 00

List of Minor Contributions to the Funds of the Missouri State Board of Immigration.

No.	Name of the Contributor.	Residence.	Date.	Amount.
1	Charles Kress	Cape Girardeau, Mo.	August 1, 1866	$3 00
2	J. Zatkowsky	"	"	2 50
3	H. Hentze	"	"	2 50
4	Wm. Bergmann	"	"	3 00
5	H. Bader	"	"	2 00
6	H. Wasterling	"	"	2 50
7	Wm. Leonhard	"	"	1 00
8	B. Bahn	"	"	1 00
9	H. Cooper	"	"	2 00
10	Joseph Unterine	"	"	2 00
11	A. Trapp	"	"	1 00
12	G. Rudert	"	"	1 00
13	Ign. Meyer	"	"	1 00
14	K. Kasten	"	"	1 00
15	H. Hopfen	"	"	1 00
16	William Flentze	Jackson City, Missouri	"	3 00
17	T. Brown	"	"	2 00
18	A. Hofman	"	"	2 00
19	H. Sperling	"	"	2 00
20	H. Friedrich	"	"	2 00
21	Charles Bethe	Dutchtown, Missouri	"	2 00
22	H. Guenther	Hubletown, Missouri	"	3 00
23	H. Hentze	"	"	2 00
24	Z. v. Bergenthal	Pocahontastown, Mo	"	1 00
25	A. Fisher	Altenburg City, Mo	"	2 00
26	J. D. Helweg	"	"	2 00
27	H. Palisch	"	"	1 00
28	E. Palisch	"	"	1 00
29	Joseph Dambach	Appletown, Missouri	"	3 00
30	H. Bruihl	"	"	2 00
31	P. Schreiner	"	"	2 00
32	Julius Sachse	"	"	2 00
33	H. Sachse	"	"	2 00
34	Samuel Doehring	"	"	2 00
35	H. Schaffer	"	"	2 00
36	A. Meister	"	"	2 00
37	Wm. Schulz	"	"	2 00
38	George Reck	"	"	2 00
39	Wm. E. Lang	"	"	1 00
40	Theodor Sachse	"	"	1 00
41	G. Niek	"	"	1 00
42	William Berth	"	"	1 00
43	H. Tuschhof	"	"	1 00
44	Wm. Ponder	"	"	1 00
45	John C. Killian	Perryville, Missouri	"	2 00
46	J. Hampel	"	"	2 00
47	H. Hoos	"	"	2 00
48	A. Fath	"	"	1 00
49	Wm. Duer	"	"	1 00
50	John Weinreich	"	"	1 00
51	J. Wilhelm	"	"	1 00
52	P. Taylor	"	"	1 00
53	Calvin Man	"	"	1 00
54	F. Stein	"	"	1 00
55	Nil. Guth	"	"	1 00
56	Joseph Dubois	"	"	50
57	D. H. Vermast	"	"	1 00
58	J. E. McBride	"	"	1 00
59	J. E. Noel	"	"	1 50
60	H. Zink	"	"	1 00
61	H. Weinbold	Wittenberg, Missouri	"	3 00
62	Charles Hesse	"	"	2 00
63	Wm. Baker	"	"	2 00
64	John Weinrich	"	"	1 00

LIST OF MINOR CONTRIBUTIONS—CONTINUED.

No.	Name of the Contributor.	Residence.	Date.	Amount.
65	F. Herrenburg	Wittenberg, Missouri	August 1, 1866	$1 00
66	H. Neisen	"	"	1 00
67	F. Nenert	"	"	1 00
68	F. B. Manwaring	"	"	1 00
69	Valentin Schener	Hamburg, Scott Co., Mo.	September 30, '66	1 50
70	John Scherrer	"	"	1 00
71	Constantin Gropfan	"	"	1 00
72	Joseph Miller	"	"	1 00
73	Philipp Rubel	"	"	1 00
74	Jacob Blathel	"	"	1 00
75	George Stubenrauch	Kelsotown, Scott Co., Mo	"	2 00
76	George Blattel	"	"	2 00
77	Stephan Glaser	"	"	1 00
78	Friedrich Weinreben	Cottleville, St. Charles Co	October 15, 1866	2 00
79	Aloys Zerr	"	"	1 00
80	Fr. Mertel	"	"	1 00
81	Wilhelm Sturner	"	"	1 00
82	Leonhard Kessler	"	"	1 00
83	John Rupp	"	"	1 00
84	Theodor Hegemann	St. Charles, Missouri	November 30, '66	2 00
85	Ernst Nolte	"	"	2 00
86	Math. Geisert	"	"	2 00
87	Schaberg & Hafer	"	"	2 00
88	D. Bedecker	"	"	2 00

THE

RESOURCES OF MISSOURI.

BY

S. WATERHOUSE,

ST. LOUIS.

EDITION, - - - - 20,000 COPIES.

ST. LOUIS, MO.,
STEREOTYPED AND PRINTED BY AUG. WIEBUSCH & SON.
1867.

CORRESPONDENCE.

THE origin and design of this pamphlet on the Resources of Missouri are explained by the following letters.

To the Editor of the N. Y. Tribune.

SIR: At the request of the State Board of Immigration, of which I am President, Professor Waterhouse has prepared the accompanying papers for publication. They will serve to answer thousands of inquiries made from every part of the United States. The public interest manifested in the subject of these papers justifies me in asking their publication in your paper. I am, very respectfully,

Your obedient servant,

THOS. C. FLETCHER.
Jefferson City, Mo.

GOV. THOS. C. FLETCHER,

DEAR SIR: The accompanying papers are hasty and informal expositions of the advantages which Missouri offers to the immigrant.

In many instances, it has been found impossible to illustrate the resources of this State by recent statistics. For the last six years, no full record of industrial products has been kept. The civil war materially deranged every branch of business. So largely did it interrupt the operations of agriculture, mining and commerce, that the statistics of these departments during the rebellion would, even if they were accessible, convey an altogether erroneous and inadequate impression of the capabilities of Missouri.

But time does not impair the force of a fact. If freshness adds to its interest, age does not detract from its truth. A decade of years has not deprived the statistics upon the minerals of Missouri of their power of producing conviction. And, though the facts which are familiar to our citizens may be new to Eastern and

European emigrants, the only vital point is the efficacy of these facts to impress upon the public mind a full comprehension of the resources of Missouri.

Hoping that a general knowledge of our economic advantages will convert many emigrants from other States and countries into immigrants and citizens of Missouri,

I am, with high regard, yours truly,

S. WATERHOUSE.
St. Louis.

This series of papers has been revised and enlarged. It is hoped that the errors which have escaped correction are not sufficiently grave to weaken the force of the general conclusions. In some instances, from the impossibility of obtaining trustworthy statistics, approximate estimates have been given; but these estimates express the best judgments of men practically conversant with the subjects under discussion.

These articles are mere "advertisements" of the material resources of Missouri. The very object of the series precluded any thorough treatment of the several topics. A fuller discussion would have made a pamphlet too large for general circulation.

The very kind and gratifying reception which a generous public has already given these articles induces the hope that a further indulgence will be granted to sincere efforts for the material growth and mental culture of our noble State.

S. W.

Washington University, June 1st, 1867.

GENERAL ADVANTAGES OF MISSOURI.

January 11, 1865, was the most eventful date in the history of Missouri. It was the birthday of liberty. It ushered Missouri into the sisterhood of free States. The act of that day will bless Missouri through all coming time. It will invigorate every form of business life, and stir the State to an early achievement of material greatness.

Slavery benumbed the faculties of Missouri. States quickened by the incentives of freedom displayed a readier intelligence and prompter solutions of the problems of political economy. With all its superior advantages, Missouri, paralyzed by the torpor of servile institutions, was subjected to the humiliation of seeing itself far surpassed in rapidity of growth by younger and smaller States. The tables of the census are registers of its comparative poverty. Such figures are not liable to the suspicion of rhetorical exaggeration. Slavery degraded labor, palsied enterprise, created injust social distinctions, fostered a dangerous aristocracy, retarded the progress of industry, and finally plunged Missouri into the horrors of civil war. No free State conspired against the life of the nation. Slavery sowed the seed which has ripened into so fruitful a harvest of death. By its insurrection against lawful authority, it forced the nation—unwilling to submit to assassination, or to commit suicide at the recommendation of traitors—to the ordeal of arms. Missouri bought her freedom with the costly treasure which is coined in the mint of battle. Her trial was severe. Desolate homes and burned villages are the monuments of her fraternal strife. Agricultural labor was interrupted, commerce was prostrated, life and property were insecure, turbulence and carnage reigned supreme. But patriotism has triumphed. The devoted gallantry of our Federal soldiery has vanquished the assailants of republican liberty. Victory has restored to the Nation unity and the possibility of greatness. Missouri will enjoy a liberal share in the splendor and rewards of triumph. Redemption from slavery, and a free participation in the prosperity which will flow from the re-establishment of the Union, are benefits of priceless value. Such gains will more than compensate for the losses of war. The advance in the price of real estate already requites Missouri for the enfranchisement of her slaves. The Ordinance of Emancipation has inaugurated a better era. The State already begins to feel the generous impulses of freedom. A new life is invigorating the body politic. Enterprise, commerce and manufactures are stimulated. Capital is flowing into the State.

Corporations are forming for the development of our internal resources, and factories are rising for the fabrication of domestic materials. The unsunned wealth of our mines is coming to the light in larger quantities. The pleased earth is yielding to the hands of free labor a richer store of golden grain. Processions of immigrant wagons are moving along all our highways. It is estimated that there was during last August and September an accession of 25,000 people to the population of the State. There is a fresh vitality in the very air of Missouri.

The domain which the Ordinance of Emancipation has restored to freedom is imperial. Missouri contains more than 67,000 square miles. It is half as large again as New York, and more than eight times the size of Massachusetts. It would make a score of German principalities. Larger than England and Wales, or Scotland and Ireland, it is equal to one-third of the area of France. The State is 318 miles long by 280 broad. Of its 43,000,000 acres, at least 35,000,000 are valuable for the purposes of agriculture or mining.

The geographical advantages of Missouri are peerless. The State lies not only in the center of the Mississippi Valley, but near the heart of the continent. Its metropolis, lying upon the Pacific Railroad, will be the half-way station between the oceans, and the great central emporium for the distribution of the productions of the Mississippi Valley. That destiny is inevitable. It is the glorious necessity of physical geography. Missouri, lying between the parallels of 36 deg. 30 min. and 40 deg. 36 min. north latitude, enjoys the golden mean of the temperate zone. The salubrity of its climate is proverbial. Its chief defect is a liability to sudden changes. The summers are long and warm. The winters are generally short and mild. On the parallel of St. Louis, the fall of snow is seldom more than two or three inches deep, and rarely remains on the ground a week. Sleigh-rides are infrequent and unsatisfactory. They illustrate the pursuit of pleasure under difficulty. The balmy airs of the Indian summer temper to delightful softness the tardy approach of winter. The average temperature of November, 1865, was 46 deg. 39 min.; in 1866, it was 45 deg. and 6 min.* Semi-tropic fruits mature in Southern Missouri, while the productions of a higher latitude flourish in the northern portions of the State. The soil of the river bottoms and rolling prairie is inexhaustibly fertile, and even the mining regions are capable of supporting a large agricultural population. The surface of Missouri is varied and undulating. Hills and mountains diversify and intersect the State. The copious streams which flow from these elevations fertilize the valleys, and afford a motive power which the level prairie can never supply. Missouri invites manufacturers to her borders with the offer of rich facilities. If natural adaptation is any index of destiny, then this State will ultimately become the workshop of the Mississippi Valley.

* The result of observations made on the northern front of Washington University, at 9 A. M. If it had been a southern exposure, or a later hour, the average would, of course, have been appreciably higher. According to another record, the mean temperature was above 47 degrees.

Missouri is heavily wooded. Her forests contain fuel and timber amply sufficient to meet the wants of a population of 10,000,000.

The mineral wealth of the State is illimitable. Probably no equal area on the face of the globe surpasses Missouri in the richness and variety of her minerals. Her vaults are stored with almost every kind of ore which the arts of man require. The key to all this wealth is a spade. The lock which secures this treasure is earth—any man can pick it.

During the rebellion Missouri was cruelly vexed with evil spirits. But these have at length been cast out, and now the State, though rent and scarred by convulsions, is restored to sanity and health. It is now ready to commence an unobstructed career of development. The motives of freedom, fertility of soil, salubrity of climate, wealth of minerals, facilities for commerce and manufactures, and ease of railroad and river transportation are the material advantages which invite the capitalist, the tradesman and the artisan of every clime and nationality to a home in Missouri, to a co-operation in the development of its measureless resources, and to an enriching participation in its prosperity.

AGRICULTURE OF MISSOURI.

Missouri presents to the farmer those conditions of climate which are most favorable to husbandry. The cold of the Northern latitudes restricts variety of production and blockades communication with icy barriers. The heat of the South enervates energy and invites to indolence. Missouri enjoys the genial mean which permits the widest range of products and the full exercise of physical powers. The thermometrical record kept at Jefferson Barracks—latitude 38 deg. 28 min., elevation 472 feet—shows that the mean annual temperature for twenty-six years, is 55.46 deg. The highest monthly average is 85.80 deg., and the lowest 18.54 deg. The mean annual rain-fall is 37.83 inches. The thermal and hydral averages of the season are:

Spring,	56 15 deg.	10.56 inches
Summer,	76 19 "	12.88 "
Autumn,	55 68 "	6.02 "
Winter,	38 85 "	6.37 "

It seems as though it would only be necessary to advertise these advantages of climate to induce agricultural emigrants to avail themselves of such a genial co-operation of nature.

Of the 35,000,000 acres of arable land in Missouri, 2,000,000 are the alluvial margins of rivers, and 20,000,000 high rolling prairie.

The richness of the soil is practically inexhaustible. In bottoms the mold is sometimes six feet deep. Some farms, after bearing without artificial fertilization twenty five successive crops, have yet failed to show any very great decrease in productiveness. The strength of the land and the length of the season permit two harvests to be gathered from the same field every year. Winter wheat or oats can always be succeeded by a crop of corn fodder, or Hungarian grass, from the same ground. This is an advantage of material importance to small farmers. The composition of the soil varies with the geological formation. But the main elements—clay, lime, sand and vegetable mold—commixed in different proportions, form a rich marl or loam which the facts of harvest prove to be highly fruitful. The following statistics, which are given by Mr. Parker, may in some instances largely exceed the average yield, but still they illustrate the possible productiveness of the soil:

Counties,	Lafayette.	Holt.	Howard.	Saline.	Pettis.
Hay, tons	2 or 3	—	—	*	2 or 3
Wheat, bushel per acre	25	—	40	40	50
Oats, " "	—	40	—	50	50
Corn, " "	100	125	100	100	100
Potatoes, " "	—	—	—	300	150
Tobacco, lbs "	800	—	2000	1200	800
Hemp, " "	2200	1500	1500	1300	1200

These counties are not selected on account of superior fertility; they are taken as samples for the simple reason that I have not been able to procure recent returns from other counties. In some of these products, the figures indicate a productiveness which is below the average of the richest districts. The table refers to special harvests and farms, and does not aim to express the mean fertility of the several counties or of other years. The average yield of wheat in Missouri is from 15 to 25 bushels an acre.

Little facts are often suggestive of the fruitfulness of the soil. Sweet potatoes have been raised in Missouri which weighed ten pounds apiece. Apples and turnips have been exhibited at our fairs which measured respectively six and eight inches in diameter. Melons and pumpkins have been produced which attained the relative weights of 40 and 100 pounds. Corn sometimes reaches as high as sixteen feet, and sorghum twenty feet. In good seasons, farmers occasionally cut four tons of hay to the acre. In all these cases, the average is of course much below these figures. These exceptional instances are cited to show what vegetable monsters the richness of the soil sometimes brings forth.

Yet, notwithstanding this wonderful wealth of soil, more than 25,000,000 acres of land in Missouri are suffered to lie fallow. There are to-day 4,000,000 acres of unentered land in this State. Nearly all of this land is rich in agricultural or mineral resources. Under the Homestead Law, 160 acres can be purchased for $18. Improved farms can be bought at from $5 to $30 an acre.

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* Timothy 3—Clover 4—Hungarian Grass 5 tons.

According to a recent estimate of the Agricultural Bureau, the average price of farm labor in Missouri is $18.00 a month with board, and $26.75 without it.

The water of Missouri is abundant and healthful. Perennial springs and copious streams are found in every part of the State. The alluvium which the Mississippi holds in solution does not impair the salutary quality of its waters. The undulating surface of Missouri affords advantages of drainage and water-power which are denied to level prairies. This is an important consideration. The necessity of thorough drainage to highly successful husbandry has been established, and the emigrant who would prefer the plains of other States to the gentle inequalities of Missouri, would betray a costly ignorance of his own interests.

The products which thrive in Missouri are too numerous for separate enumeration. The list would be an inventory of the productions of the temperate zone. All the cereals grow with rank luxuriance. The soil is rich in the chemical elements of which the different grains are composed.

Cotton is produced in the Southern portion of the State. The amount per acre varies from 200 to 400 pounds. During the war, it was a very profitable crop.

The soil of Missouri is suited to the culture of Sorghum and Imphee. Their rank growth and great productiveness strongly recommend a more general cultivation of these vegetables. No portion of them is worthless. The juice is refined into excellent sugar and syrup, the leaves make good fodder, and the fiber of the stalk is manufactured into paper.

Hemp and tobacco are two of the main staples of Missouri. Equal to the best growth of Kentucky and Virginia, they are a vast source of wealth to the State. Few crops yield a larger profit. Missouri produces more than forty-five per cent. of the hemp of the United States.

Missouri is admirably adapted to the cultivation of fruit. Apples, pears, peaches, plums, cherries, currants, strawberries, blackberries, quinces, apricots and nectarines, reach a rare size and delicacy of flavor. Trees and vines grow rapidly and bear largely. In southern Missouri, the winters are so mild that fruit trees are seldom injured by inclemency of the weather. The season, which even in northern Missouri permits plowing by the middle of March, cannot be very severe or protracted. In open winters, farmers have not infrequently done their plowing in December and January. In the genial climate of Missouri, the farmers may enjoy from May to November an uninterrupted succession of fresh fruits. Apples can be produced in illimitable quantities. The trees mature at least five years earlier than they do in New England. Peach trees continue to bear from fifteen to twenty years, and apple trees from twenty-five to thirty years. Two thousand bushels of peaches have been gathered from a single acre. Fruit culture is one of the most lucrative branches of husbandry in Missouri.

Unless the prophecies of scientific men are false and the obvious intentions of nature are thwarted, Missouri is destined to be the

vineyard of America. There has been no elaborate investigation since the geological survey of Professor Swallow. But the familiarity of the facts which his researches developed does not diminish their truthfulness. It is estimated that there are in Southern Missouri 15,000,000 acres adapted to the culture of the grape. This land is situated 1,000 or 1,500 feet above the level of the ocean. Nature has, in many localities, moulded the surface into terraces, as if on purpose to facilitate the labors of the vine-dresser. The composition of the soil is remarkably like that of the celebrated vine lands of Germany and France. Chemical analysis shows that the soil abounds in lime, soda, potash, magnesia, and phosphoric acid; and these are the principal elements which enter into the structure of the vine. The soil is dry and light, the air equable and comparatively vaporless; the water abundant and pure. These are the identical conditions under which the luscious vintages of the Old World attain their perfection.

The success of our vineyards has been seriously diminished by the inexperience of our vine-dressers. Unfamiliarity with the best methods of treatment, and ignorance of the varieties best suited to our conditions of climate and soil, have materially lessened the profits of grape-growing in Missouri.

Yet the following averages, based upon the statistics of Mr. HUSMANN, in his excellent treatise on "Grapes and Wine," show that, even under the existing disadvantages, the culture of the vine has been highly lucrative.

The approximate expense of preparing a vineyard is indicated below.

Variety of Grape.	Cost per Acre.
Delaware	$875.00
Norton's Virginia	660.00
Herbemont	625.00
Catawba	465.00
Concord	410.00

The mean results per acre of one of Mr. HUSMANN'S vineyards, from 1849 to 1865 inclusive, are as follow:

No. Vines.	No. Gal.	Price per Gal.	Gross Value.	Net Profit.
3276.	529.	$1.50	$258.00	$168.00

The cost of 2½ acres, planted in 1861, was:

1700 Norton's Virginia, at $20 per 100	$340.00
400 Concord, " 25 " "	100.00
350 Delaware, " 50 " "	175.00
150 Herbemont, " 25 " "	37.50
50 Cunningham, " 50 " "	25.00
Other assorted varieties	100.00
Expense of preparing land, $50 per acre	125.00
Erection of trellis, $150 per acre	375.00
Interest on capital	100.00
Total	$1,377.50

The products of this vineyard were:

First year, layers and cuttings						$339.00
Second " " " "						1,200.00
Third " " " "						2,500.00
Fourth " " " "						4,000.00
Third "	2,000 lbs	Concord grapes	at	16 cts.	net	320.00
Fourth "	2,040 "	" "	"	24 "	"	489.60
Fifth "	1,030 gal.	Concord,	at	$2.50	per gal.	2,575.00
	1,300 "	Nort. Virg.	"	4.00	" "	5,200.00
	125 "	Herbemont	"	3.00	" "	375.00
	40 "	Delaware	"	6.00	" "	240.00
	30 "	Cunningham	"	4.00	" "	120.00
	10 "	Clinton	"	3.00	" "	30.00
	50 "	Other kinds	"	3.00	" "	150.00
	336 lbs	Hartford Prolific,	at	20 cts.	per lb	67.20
	57,000 plants	at $100 per 1000				5,700.00
Gross value						$23,805.80

Deduct the interest on capital at 5 per cent	$500.	
" cost of plants, trellis &c.	1,277.	
" " labor for the 1st year	150.	
" " " " 2nd "	300.	
" " " " 3rd "	400.	
" " " " 4th "	500.	
" " " " 5th "	500.	—$3,627.00
Net profit		$19,678.80

The following exhibit shows the annual returns of Mr. M. Poeschel's new vineyard:

Year.	Area.	Gross profits.
1863	2½ acres	$3,900.00
1864	5 "	5,450.00
1865	7½ "	14,237.50
	Total	$23,587.50

The averages of Mr. Poeschel's old vineyard, from 1847 to 1863 inclusive, were:

Acres.	Gal. per acre.	Price per gal.
4.4	986	$1.54

The statistics of Mr. Wm. Poeschel's vineyard are:

Year.	Area.	Gross profits.
1857	1½ acres	$1,402.50
1858	1½ "	275.00
1859	1½ "	375.00
1860	2 "	1,846.80
1861	2 "	783.50
1862	2 "	1,742.12
1863	2½ "	2,512.00
1864	2½ "	630.00
1865	5 "	8,290.00
9 years	20½ acres	$17,856.92

Under favorable circumstances, two acres of vines yielded the following results:

No.	Variety.	Gallons.	Price per Gal.	Amount.
350	Delaware	40	$6.00	$240.00
100	Herbemont	125	3.00	375.00
500	Concord	1,030	2.50	2,575.00
1,200	Norton	1,300	4.00	5,200.00
Other vines				867.20
Cuttings				5,700.00
			Total value	$14,457.20
			Deduction of cost, labor and interest...	1,000.00
			Net profit of two acres in one year	$13,457.20

These figures exhibit a profit which is certainly ample enough to satisfy every reasonable expectation of gain.

In 1865, the value of the grape crop in the vicinity of Hermann was appraised at $150,000. If we may be guided in our estimates by European statistics, the vinelands of Missouri are able to afford a pleasant and remunerative occupation to a population triple the present census of the State, and to yield an annual vintage of at least 1,000,000,000 gallons of wine. The physical structure of Southern Missouri is a prophecy of rich and delicious vintages, which the sagacious enterprise of our citizens should speedily fulfil.

Almost all the valuable varieties of forest trees abound in Missouri. The pine, oak, ash, elm, walnut, hickory, maple, gum, overcup, cottonwood, cypress, chestnut, sycamore, linn, beech, catalpa, and tupelo are found in different portions of the State. The following table, taken from Mr. Parker's suggestive volume, shows the magnitude which some of these trees occasionally reach:

County.	Tree.	Circum. in feet.	Height.
Dunklin	Catalpa	10	90
Cape Girardeau	Sweet Gum	15	130
" "	White Ash	18	110
Pemiscot	Elm	22	100
"	Cypress	29	125
Howard	White Oak	28	100
Stoddard	Beech	18	120
"	Tupelo	30	120
Mississippi	Spanish Oak	28	110
"	Sycamore	43	—

The magnitude of these statements excites distrust. But I have no means of verifying them. If there is no error in the figures, the existence of such vegetable giants demonstrates a marvelous opulence of soil. Large districts of southern Missouri are heavily covered with timber. For the purposes of ship-building, the live oak of this State is unsurpassed by any that grows in the Mississippi Valley. In the southern counties, there are millions of acres of valuable yellow pine which the hand of man has not touched. Some of these are four feet in diameter, and shoot up to a height of ninety feet. Energy might easily coin this timber into a fortune.

Last year about $50,000 worth of tar, rosin and turpentine was brought to St. Louis from these pineries and sold at a large advance upon the cost of manufacture.

The cultivation of grass brings the farmer liberal profits. Clover, timothy, red-top, Hungarian and herds-grass grow with spontaneous exuberance. The yield varies from one and a half to three tons an acre. In the culture of this crop, improved machinery enables the farmer to secure large returns for a slight outlay of labor. The richness of the herbage is favorable to stock-raising. Cattle occasionally graze all winter. It is seldom necessary to feed them more than two months and a half. The luxuriant verdure of our alluvial bottoms and loamy uplands would fatten cattle enough to supply the markets of the country. The farmer has the advantage of the open prairie—his herds can feed at will upon its verdant pasturage. The stock raiser adjacent to a prairie can make a profitable use of its vast commons. The hilly region of southern Missouri is admirably adapted to sheep grazing. A moderate use of Missouri's ability to raise sheep would remove the necessity of importing into this country 100,000,000 pounds of wool annually.

The alpaca of Peru is a hardy animal, and thrives upon the scantiest pasturage. Our national Bureau of Agriculture has recommended the naturalization of this animal in the United States. The hardihood of the alpaca and its abundant yield of wool justify the attempt. Southern Missouri affords the finest opportunities for the trial of this experiment. Our farmers may find in the introduction of this new breed a rich reward for their enterprise. In this way, portions of the State too uneven or sterile for the purposes of agriculture may be reclaimed to profitable uses. At all events, the experiment is worthy of a trial.

The mulberry tree grows wild in Missouri. It is hardy and rank. With cultivation, it would answer every want of the silk-grower. The Chinese silk worm, which has been imported from France and naturalized in this country, would find in the abundant foliage of the ailanthus tree rich materials for its glossy fabric. The softness of the climate is peculiarly favorable to the health and industry of this little manufacturer.

The castor bean richly repays the labor of cultivation. An acre will yield from fifteen to twenty-five bushels. During the last four years the price has varied, in consequence of competition, from $2.50 to $6.50 a bushel. The oil factories of St. Louis alone are able to express 200,000 bushels of castor beans annually. At the present price of castor oil, the manufacturers can afford to pay from $2.50 to $3 a bushel.

Flax is a quick crop. In three months from the time of sowing, the farmer can receive the profits of his industry. The yield of an acre is from fifteen to twenty-two bushels of flaxseed; or, when flax and barley are sown together, from ten to fifteen bushels of flaxseed, and from sixteen to twenty-two bushels of barley. The average weight of straw to the acre is from one and a half to two tons. The crop is unfailing. Its certainty is a strong recommendation.

The annual capacity of our St. Louis mills for the manufacture of linseed oil is 250,000 bushels. For the last three years, the seed has been worth $2.50 a bushel. The millions of dollars which this country is now paying for imported castor and linseed oil ought to enrich American producers. The culture of flaxseed and the castor bean challenges the favorable attention of the farmers of Missouri.

The cultivation of the beet may yet expand into an important branch of Western agriculture. The enormous productiveness of this vegetable may enable it to enter into a profitable competition with cane in the manufacture of sugar.

The necessary brevity of this article precludes a fuller discussion of the agricultural interests of Missouri. Our limits only permit the mention of our leading staples. But this brief enumeration of our principal products or capabilities suffices to show the rare adaptation of Missouri to the uses of agriculture.

The Agricultural Bureau at Washington is efficiently promoting the interests of American husbandry. It is intelligently exploring the productions of the world, determining their value and testing their adaptation to the needs of American agriculture. Our farmers ought to avail themselves of every judicious and practical suggestion which emanates from this Bureau. They cannot afford to neglect the results of scientific investigation. The liberality of the general Government has given to Missouri 330,000 acres of public lands. This gift is sufficient for the organization and partial endowment of an Agricultural University. Such an institution, organized upon a practical basis, might render an important service to the farming interests of Missouri. It would elevate agriculture to a science, and promote alike the cultivation of the mind and the soil. It would diffuse throughout the State the latest results of scientific inquiry and experiment. It would suggest new, less expensive and more profitable processes of culture. It would liberalise the mind by broader views and nobler conceptions of the independence and dignity of the farmer's life. The husbandry which is prompt to take the hints derived from chemical analysis and actual trial, will always produce the most fruitful harvest.

Our soil and climate are favorable to every staple of the temperate zone. In every direction, there are unopened avenues leading to wealth. Rich lands and certain competency are the prizes which the intelligent immigrant will draw. For the prudent and industrious settler there are no blanks. In this State, agriculture will assuredly bless its skilful follower with independence and worldly store.

St. Louis, easily accessible by river or rail, furnishes a ready and unfailing market for every production of the husbandman. The exuberant West invites the farmers of the Old World and of New England to forsake their ungrateful wastes for a soil which will show a richer appreciation of their tillage.

MINERALS OF MISSOURI. *

Missouri may safely challenge the world to produce its superior in the number, extent and value of its minerals. The immensity of its mineral wealth subjects even a truthful exposition to a suspicion of exaggeration. The sober calculations of geology seem to be mere figures of rhetoric. The imperfect explorations which have been made have disclosed the superiority, but not the full magnitude, of the metallic resources of Missouri. Some of the vaults of nature's bank have been opened, but the treasure is too vast to be counted. The earth has hoarded in its coffers an unminted and incalculable wealth. The inventory of the mineral resources of Missouri enumerates springs—whose waters are impregnated with salt, sulphur, iron and petroleum—jasper, agate, chalcedony, lithographic stone, vitreous sand, granite, marble, limestone, plastic and fire-clays, metallic paints, hydraulic cements, mill and grind-stones, fire-rock, kaolin, emory, plumbago, nickel, cobalt, zinc, copper, silver, gold, lead, coal and iron. Most of these minerals occur in quantities that are literally inexhaustible. In case of many of these articles, the mines and quarries of Missouri could easily supply the market of the world. If an incomplete geologic survey and the rude efforts of unscientific miners, who have as yet scarcely touched the vast deposits of the State, have disclosed such results, we may justly expect far richer developments when an exhaustive investigation has been made, and systematic mining been extensively prosecuted.

Of silver and gold, traces only have been discovered. Cobalt and nickel exist in profusion.

Zinc is very abundant. Its masses have often retarded the mining of more valuable ores. Thousands of tons of this metal, thrown away by the lead miners as a vexatious and worthless impediment to their progress, might be with a profitable cheapness reclaimed to the uses of commerce. The ore is very pure.

Copper has been found in 15 counties. At Hinch's Mine, 800 pounds of ore gave 272 pounds of good copper. In this locality, the gangue is red clay, chert and magnesian limestone. At Rives' Mine, the ore lies only 20 feet below the surface. The deposit is several feet thick, and contains a rich proportion of copper.

The copper Hill Mine has yielded 100,000 pounds. The ore from the Stanton Mines gives, according to two analyses, 48.41 per cent of pure copper. The ore is usually a sulphuret or carbonate.

But very little attention has been paid to the zink and copper mines of Missouri. The larger profits of other kinds of mining have diverted public enterprise from a fair trial and full development of these ores. The success of the copper works at Frederick-

* The materials of this article are almost exclusively derived from the able Reports of Professors Swallow and Litton in the Geological Survey of the State of Missouri.

town would justify more extended operations in this neglected branch of mining.

Lead has been discovered in more than 500 localities. Its purple veins run through 20 counties and intersect an area of more than 6,000 square miles. The richness of these mines is exhibited by the following statistics:

	Pounds of Lead.
Total yield of Perry's mine to 1854	12,000,000
" " Vallé's "	13,000,000
" " Franklin's " from 1824 to 1854	20,000,000
Yield of Shibboleth mine in 1811	3,000,000
" Washington and St. Francois Counties from 1841 to 1854	50,000,000
Annual yield of Washington county	3,000,000
Total " Virginia mine	10,000,000*
Yield of Williams' mine in 9 months of 1854	145,000*
" Frazer's " 1 month	100,000*
" " " week	50,000*
Shipped from Selma alone from 1834 to 1854	70,000,000
Annual average of all mines from 1840 to 1854	4,000,000

At the mine of Price, Bray & Co., 2,000 lbs. of Galena have been taken from a shaft which is only 10 feet deep. The ore at Mineral Point is in some places 18 inches thick.

The lead is mostly sulphuret. Out of 120 specimens of ore, 113 were sulphuret, 6 sulphuret and carbonate, and 1 sulphate.

From 60 to 85 per cent. of the ore is pure lead. The gangue is generally sulphate of baryta. The ore is often found in magnesian limestone, or red clay interspersed with brown hematite, pyrites and ochre. The mines which have been worked are mostly shallow.

The shaft of Williams' mine was from 25 to 75 feet deep.
" " Shibboleth " " 16 " 60 "
" " Price's " 10 "

At Granby, the lead comes to the very surface of the ground.

In November, 1865, Mr. Rutter, the Superintendent of the St. Louis White Lead Factory, made a careful examination of Mine la Motte. His report to Mr. Banker, then President of the Lead and Oil Company, embraces the following interesting facts: The ore, which is almost exclusively a sulphuret, contains from 60 to 66 per cent. of pure lead. It is found in a limestone formation, at a depth of from 22 to 30 feet below the surface. The earth which overlies the limestone varies from 6 to 12 feet in depth. Horizontal sheets of almost pure galena, varying from 1 to 12 inches in thickness, cover the beds of mineral; beneath them lies a less productive sulphuret, which extends downward from 4 to 6 feet. The mean thickness is 8 inches.

The weight of a square foot of lead, 1 inch thick, is 40 pounds.
" " " " 8 inches " 320 "

* Pounds of Ore.

Sometimes a single drill yields 100 of these nearly cubic feet in a month. But an average of 50 feet gives, as the product of one drill, 615 pounds a day, or 16,000 pounds a month. The daily expense of each drill is $7.50. Each furnace smelts from 40 to 80 pigs of lead a day. An average product of 50 pigs, or 3,700 pounds, requires the reduction of 6,166 pounds of ore. The cost of smelting is $37 a day.

Ten drills are necessary to keep one furnace in blast. We are now ready for a summary of results:

3,700 lbs. lead at $5.71½, the average price in this market for the five years previous to 1861...		$211.51
Deduct freight to St. Louis ½c per lb.	$18.50	
" commission for selling, 1 per cent. on $211.51	2.11	
" cost of mining, ten drills at $7.50 each	75.00	
" cost of smelting.....	37.00	132.61
Profit of one furnace per day.....		$ 78.90
" " " " month		2,051.40
" " " " year.....		24,616.80

At this rate 100 drills, a number not exceeding the capacity of a large company, would yield an average revenue of $359,252.

During the first year, large operations would involve a heavy outlay for shafts, drainage and machinery. But the cost of repairs and improvements could hardly exceed 30 per cent. of the year's earnings.

The preceding estimates are based upon present facts, and not upon theoretical possibilities. They are founded upon the practical results of recent mining. An enlargement of present operations and a more extended use of existing facilities are all that is necessary to secure the success which the foregoing figures indicate.

Doubtless a treatment by the economic methods of science would give a measureably higher percentage of profit.

Perfectly pure galena contains 13.34 per cent. of sulphur and 86.66 per cent. of lead.

An uncrystalized specimen from Mine la Motte, analyzed by Dr. Litton, gave—together with traces of iron, copper and nickel —13.50 per cent. of sulphur and 84.50 per cent. of lead.

Under our present wasteful processes, the sulphurets of Mine la Motte sometimes yield 77.7 per cent. of pure lead.

Except the slave labor of three proprietors, and scarcely 200 men have ever been employed at one time in the mines of Missouri. The operations have commonly been desultory and the methods unscientific. Miners have chiefly sought superficial deposits in soft clay, where the ore could easily be reached with the spade. Mining, by the systematic process which science teaches, will probably develop far richer deposits than any yet found.

Coal underlies a large portion of Missouri. It has already been discovered in 30 counties. Beds of cannel coal, 45 feet thick, have been found. There are 160 square miles of coal in St. Louis

county. The amount of coal in Cooper county has been estimated at 60,000,000 tons. Under every acre of Boone county there is supposed to be at least $1,000 worth of coal. The deposits in the vicinity of Booneville cover an area of 2,000 square miles. The strata have a mean thickness of three feet, and are calculated to contain 60,000,000 tons of coal.

The following estimates are based upon the survey of Professor SWALLOW:

Counties.	Square miles.	Mean thickness.	Tons of Coal.
Andrew, Atchison, Buchanan, Holt, Platte,	2,000	10 feet	20,000,000,000
Chariton, Linn, Livingston, Macon,	1,500	12 feet	18,000,000,000
State of Missouri	26,887	8 feet	200,000,000,000

If we allow one half of this quantity—which is more than 34,400,000,000 tons below the calculation of Professor SWALLOW—as the true measure of our coal beds, it would take, at 100,000 tons a day, more than 3,000 years, at 300 working days each, to exhaust the coal deposits of Missouri.

Iron abounds in different portions of Missouri, but the stupendous masses of almost solid iron, found in St. Francois, Iron and Reynolds counties, dwarf the discoveries of other localities into insignificance. Before the bloomaries of Ironton, the furnaces in other sections of the State must pale their ineffectual fires. The results of Dr. LITTON's investigations have been often published, but perhaps the use for which this article is designed will justify their reproduction.

Shepherd Mountain is 660 feet high. The ore, which is magnetic and specular, contains a large percentage of pure iron. The height of Pilot Knob above the Mississippi river is 1,118 feet. Its base 581 feet from the summit, is 360 acres. The iron is known to extend 440 feet below the surface. The upper section of 141 feet is judged to contain 14,000,000 tons of ore.

The elevation of Iron Mountain is 228 feet, and the area of its base 500 acres. The solid contents of the cone are 230,000,000 tons. It is thought that every foot beneath the surface will yield 3,000,000 tons of ore. At the depth of 180 feet, an artesian auger is still penetrating solid ore.

Dr. LITTON thinks that these mountains contain enough iron above the surface to afford for 200 years an annual supply of 1,000,000 tons. The ore is almost exclusively specular. It yields 56 per cent. of pure iron. The iron is strong, tough and fibrous.

These estimates of the amount of lead, coal and iron in the State are founded upon the elaborate researches of geologists. Their deductions are based upon geologic investigations and chemical

analyses. The well-considered judgments of men of scientific eminence are certainly entitled to audience and respect. But suppose these calculations are erroneous—take one hundredth part of the aggregates, and you still have proofs of vast and exhaustless mineral riches. The fictions of Arabian wealth hardly equal the reality of Missouri's treasures.

These ores underlie some of the richest land in the State. The owner possesses at once a fertile farm and a valuable mine. In some cases, it is difficult to determine whether the agricultural or mineral resources are most productive. Full coffers are the reward of either industry. A poor man can earn enough in a few months to purchase a mineral farm. Under prescribed conditions, less than $20 will secure a homestead of 160 acres. The workman who, with a full knowledge of the fact, would prefer delving for a mere pittance in the mines of Europe to the independent ownership of a mine in Missouri, must be a miner who has not yet reached the years of discretion. He must be too young to have a mine of his own.

The recent disasters in the collieries of England will doubtless lead to the emigration of many British miners. The loss of 600 lives by the late catastrophe may well attract the public attention to the hardships, unhealthfulness, and extreme danger of English coal mining. Great depth of mines, stifling heat, thin veins of coal, protracted toil in a recumbent position, poisonous gas, and deadly explosions are the inevitable conditions of British mining. That English miners should be willing to encounter all these privations and perils for wages which scarcely save them from starvation shows a remarkable contentment under adversity, or great ignorance of the advantages which America offers. The mines of Missouri present a favorable contrast to the collieries of Britain. They are shallow, cool, and healthful. The thickness of the seams generally permits work in an erect position. Never, in a single instance, have the galleries of our coal mines been the scene of a fatal explosion. If the unembellished facts of our mineral resources and mining facilities could be diffused throughout the coal districts of England, thousands of British miners would no longer submit to their present hardships, but hasten to the favored State where higher wages and lighter labors would soon procure them a happy competency. The inducements which Missouri presents to the miner are great and substantial. Liberal wages will reward his service and enable him to satisfy his love of independence and home by the early acquisition of a freehold. Political equality, social respect, and material success await the myriads whom a knowledge of our mineral resources will soon make citizens of Missouri.

MANUFACTURES OF MISSOURI.

THERE is no branch of general industry to which Missouri has paid less attention than to manufactures. The rare advantages of the State have not been improved. The amount of our domestic products is by no means commensurate with our facilities for manufacture. The last census exhibits a palpable neglect of this department of industry.

In 1860, the total value of our national manufactures was $1,900,000,000. The workshops of the country employed 1,400,000 persons, and supported 5,000,000. The sum which Missouri contributed to this enormous aggregate is reproachfully small. In 1860, the total number of manufacturing establishments in the State was 2,800.

Their capital was	$20,500,000
Value of raw material	24,000,000
" " annual product	43,500,000
Number of workmen	21,000
" " persons dependent upon manufactures	62,000

A few comparisons will illustrate the insignificance of our manufactures.

CAPITAL OF MANUFACTORIES IN 1860.

New Hampshire	$25,900,000	Ohio	$58,000,000
Massachusetts	138,000,000	New York	175,000,000

VALUE OF RAW MATERIAL.

New Hampshire	$24,400,000	Ohio	$70,000,000
Massachusetts	141,000,000	New York	210,000,000

VALUE OF PRODUCT.

New Hampshire	$45,500,000	Ohio	$125,000,000
Massachusetts	266,000,000	New York	379,000,000

NUMBER OF WORKMEN.

New Hampshire	36,000	Ohio	81,000
Massachusetts	217,000	New York	221,000

NUMBER OF PERSONS DEPENDENT UPON MANUFACTURES.

New Hampshire	108,000	Ohio	243,000
Massachusetts	651,000	New York	663,000

NUMBER OF ESTABLISHMENTS.

New Hampshire	2,582	Ohio	10,710
Massachusetts	7,766	New York	28,236

From this table it will be observed that Missouri, with an area more than seven times that of the Granite State, is still inferior to New Hampshire in manufacturing activity. Our want of energy is conspicuous in the very articles which Missouri is best fitted to produce. The following figures show the value of special products for the year 1860:

FURNITURE.

Missouri	$200,000	Ohio	$3,700,000
Massachusetts	3,365,000	New York	7,175,000

AGRICULTURAL IMPLEMENTS.

Missouri	$280,000	Ohio	$2,690,000
Massachusetts	1,740,000	New York	3,429,000

PIG, BAR, AND ROLLED IRON.

Missouri	$1,110,000	Ohio	$3,000,000
Massachusetts	1,694,000	New York	3,600,000

CAST IRON.

Missouri	$1,041,000	Ohio	$1,650,000
Massachusetts	1,800,000	New York	8,216,000

MACHINERY.

Missouri	$750,000	Ohio	$4,855,000
Massachusetts	5,131,000	New York	10,484,000

SAWED AND PLANED LUMBER.

Missouri	$3,700,000	Ohio	$5,600,000
Massachusetts	2,288,000	New York	12,485,000

FLOUR AND MEAL.

Missouri	$8,997,000	Ohio	$27,129,000
Massachusetts	4,196,000	New York	35,000,000

COAL.

Missouri	$8,200	Ohio	$1,539,000
Illinois	964,000	Pennsylvania	2,833,000

LEATHER.

Missouri	$368,800	Massachusetts	$10,354,000
Pennsylvania	12,491,000	New York	20,758,000

BOOTS AND SHOES.

Missouri	$868,700	Massachusetts	$46,440,000
Pennsylvania	8,179,000	New York	10,878,000

TOTAL PRODUCTS OF INDUSTRY.

Missouri	$43,500,000	Massachusetts	$266,000,000
Pennsylvania	285,500,000	New York	379,600,000

PIG AND WROUGHT IRON IN 1865.

Missouri	$2,740,800	West Virginia	$3,379,600
Kentucky	3,208,000	Ohio	20,588,600

In 1865, the value of the cotton manufactures of Massachusetts was nearly $100,000,000.

But it may be justly alleged that there is an obvious unfairness in instituting comparisons between young and old States. Consider indulgently the youth and servile impediments of the State, make every allowance which a justice tempered with partiality may

require, and then the inference that Missouri has neglected its vast manufacturing facilities is unavoidable. These statistics are adduced not to aggravate past remissness, but to stimulate future effort.

An era of greater activity has already begun. In St. Louis, for the year ending October 1865, the United States Assessor reports an average of ten licenses a day for the opening of new establishments. During the same period, there was an increase of 5 per cent. in the manufacture of clothing, cotton fabrics, boots, shoes, iron and wooden ware.

It is obviously unnecessary to enumerate the articles that ought to be manufactured in Missouri. There is scarcely a want or a luxury of human life which this State is not able to satisfy by products of domestic manufacture.

Accessible forests of various and valuable lumber cover whole counties, and yet we import annually 150,000,000 feet of lumber, at a cost of $6,000,000.

Admirable water power abounds in almost every part of the State, yet we allow the spendthrift streams to squander their energies. The daily flow of Gunther's Spring is 5,000,000 cubic feet of water, and the discharge of Bryce's Spring is more than double that quantity. The water is so warm that it does not freeze. It is copious, unfailing, and iceless. Conditions more favorable to the manufacturer can hardly be imagined. This great power which is now running to waste should be set at the earliest moment to the music of machinery. It should be taught to drive the wheels of saw-mills and to whirl the spindles of woolen and cotton mills. No sound reason can be offered why this State should not produce its own textile fabrics. The only cotton mill in St. Louis has met with a success that ought to lead to the erection of other factories.

Indian hemp is now assuming a commercial importance among the great staples of the world. The rapidity with which this commodity has entered into the trade of nations recalls the earlier years and sudden expansion of the cotton traffic. The Commissioner of Internal Revenue, in his last Report, gives the following table of the exports of Indian hemp. The average weight of the bales is 300 pounds.

Years.	United States.	France.	Great Britain.	Other Countries.	Total pounds.
1856	20,474	20,168	248,651	1,045	87,101,400
1857	31,740	24,055	242,770	2,555	90,336,000
1858	38,308	21,314	197,441	4,309	78,411,600
1859	27,725	28,713	391,741	1,519	134,909,400
1860	1,704	33,804	360,725	2,113	119,503,800
1861	16,501	36,283	301,798	1,426	106,802,400
1862	17,807	23,780	365,505	12,573	125,899,500
1863	16,120	12,555	707,078	13,794	224,864,100
1864	16,646	7,933	552,748	161,332	221,597,700
1865	28,804	8,999	754,714	26,260	245,633,100

The importation of jute into the United States is already very large. The extent of our imports is shown in the annexed exhibit:

Years.	Gunny-bags.	Pounds.	Yards of Gunny-cloth	Pounds.	Total Weight.
1856	6,423,200	12,846,400	23,358,000	49,635,750	62,482,150
1857	4,669,650	9,339,300	15,003,570	31,882,586	41,221,886
1858	4,562,327	9,124,654	19,170,000	40,736,250	49,860,904
1859	4,266,400	8,532,800	25,489,020	54,164,168	62,696,968
1860	3,294,945	6,589,890	26,631,180	56,591,259	63,181,149
1861	3,208,725	6,417,450	8,517,060	18,098,753	24,516,203
1862	3,376,786	6,753,572	6,896,100	14,654,212	21,407,784
1863	3,703,000	7,406,000	669,600	1,422,900	8,828,900
1864	2,676,300	5,352,600	392,400	833,850	6,186,450
1865	6,875,215	13,750,430	1,834,920	3,899,205	17,649,635

In 1865, 305,166 bales of jute were imported into the United States. It is important to notice the immediate source of these importations.

From India, raw material	8,641,200	pounds.
" Great Britain, " "	3,000,000	"
" " " manufactured goods	24,000,000	"
" India " "	55,908,600	"
Total	91,549,800	"

The Commissioner very justly thinks that the 24,000,000 pounds of Indian fabrics which are imported from England should be manufactured in this country. The raw material should be brought directly from the land which produces it, and wrought into gunny-bags and burlaps in our own factories. This would not only secure to the United States the profits of manufacture, but cheapen the product and enlarge our trade with India. But perhaps it is possible for us to obviate the necessity of importing jute. It is thought that some of our own lands are suited to the production of Indian hemp. An experiment whose success would increase the agricultural and manufacturing prosperity of the country ought to be subjected to an early and exhaustive trial. It may be found that the lands of Southern Missouri are fit for the growth of this staple. The successful culture of Indian hemp in this state would confer upon St. Louis a new facility for the distribution of the products of the Mississippi Valley.

Flour ought to be one of our largest products. Our streams furnish a cheap motive power and the means of transportation. Our brands are the best in the Eastern Markets. Yet, in 1860, the product of our flour mills was less than half the quantity made in Illinois.

The annual cost of imported paper is millions of dollars. Paper factories would not only save our citizens this great expense, but convert our refuse cotton, flax, straw and sorghum into sources of wealth. The Spanish atocha or esparto—50,000 tons of which are annually imported into England for the manufacture of paper—would doubtless thrive on the sterile slopes of the Ozark range, and become an important industrial interest.

After the completion of the Pacific Railroad, St. Louis will become an entrepot of the precious metals extracted from the mines of the Rocky Mountains. Then, if the interests of the West are consulted, the National Government will establish in this city a branch mint, and individual enterprise will erect factories in which silver and gold will be fashioned into articles of use and ornament. In the manufacture of watches, this country has already declared its independence of Europe, and it is very strange if American ingenuity and taste cannot equal the artistic skill of the Old World in the production of jewelry.

The granites of Missouri are coarse and strong. They would make an excellent building material for stores and public edifices, but thus far the quarries have been left almost untouched. Marble has been brought to St. Louis from Vermont, and yet there are in this State numerous beds of compact, fine-grained, durable marble. The colors are various; white, blue, and yellow marbles are common. Other varieties are clouded, mottled with pink and purple, veined with spar, and capable of high polish.

A fine lithographic stone is found in Macon county. A native specimen which is an excellent substitute for the foreign article has recently been exhibited in this city. Bavaria may find a rival in Missouri. If the rest of the quarry proves to be as good as the sample, it will be a valuable element in the resources of the State. Lithographic stone is now selling in this market at from 10 to 30 cents a pound. Large blocks are very expensive.

Missouri ought to manufacture her own paints. The material is abundant. Blue, pink, purple, red, yellow and white paints can be made from the mineral which our own soil contains. White lead and the oxyd of zinc can be made in illimitable quantities from our own materials. The supply of ochres, barytes, uranium, manganese, cobalt, red chalk, China clay and *terra di Siena* exceeds any probable demand for the manufacture of paints.

Fire-clay, rivaling the best deposits of Europe, is found within four miles of the St. Louis Court House. The bed is fifteen feet thick, and very extensive. An analysis shows the following elements:

Silica	53,94
Alumina, with some peroxide of iron	33,73
Lime	1,17
Magnesia	a trace
Water	10,94
Total	99,78

Fire-brick made of this clay is capable of resisting very high temperatures. The excellence of the material recommends it for retorts, alembics, crucibles, and furnaces. The kilns of this manufacture ought to be far more numerous.

Formerly fire-rock was brought from remote States for the bloomaries at Ironton. This fire-rock, imported at a very heavy expense, seldom lasted more than five months. But a few years ago, a geological examination discovered a superior quarry in the

immediate vicinity of Ironton. This fire-rock is very refractory, and often resists the heat of the furnaces for 17 months.

Missouri is adapted to the manufacture of furniture and agricultural implements. Lumber and transportation are cheap. St. Louis should be the factory and emporium of every kind of wood-work which the house and the farm require. It should manufacture everything from a chair to a piano—from a hand-rake to a patent reaper—from a wagon to a rail-car. In 1860, the value of the furniture and agricultural machinery produced in Missouri, Illinois, and New York, was respectively $483,000, $3,425,000, and $10,600,000. This branch of manufactures, which is destined to be a prominent industry in Missouri, will yet increase the capital of the State by an annual product of millions of dollars.

Adepts consider the plastic clay which is found at Commerce fully equal to that of Devonshire. It is as fine and almost as white as flour. The best potter's clay and kaolin exist in quantities that preclude the idea of exhaustion. All this State needs to become famous for its crockery and queen's ware is skilful labor from the potteries of Europe. The materials and capital for the manufacture of earthen ware and porcelain are abundant. Art alone is requisite.

Near Ste. Genevieve there is a bank of saccharoidal sand which is twenty feet in height, and miles in extent. The mass is inexhaustible. Two analyses give the following result:

Silica	98,81	99,02
Lime	0,92	0,98

The sand is very friable and nearly as white as snow. It is not oxydized or discolored by heat, and the glass made from it is clear and unstained. One firm in this city has annually exported more than 3,500 tons of this sand to the glass manufactories of Wheeling, Steubenville and Pittsburg. The possible benefit which this industry might confer upon St. Louis may be inferred from the statistics of the glass manufactories of Pittsburg. In 1866, in the exclusive manufacture of bottles and window panes,

The number of men and boys employed was	1,800
" " " tons of silica consumed	242,000
" amount of annual wages	$1,396,500
" value of annual product	$2,160,000

There are also 19 manufactories of flint glass in which

The number of workmen is	2,300
" amount of weekly wages	$19,000
" value of the factories	$1,298,000
" number of bushels of coal	2,095,800
" worth of yearly product	$2,000,000

There are in all 35 glass-works, employing a capital of $6,800,000

A large portion of the silica used in the glass-factories of Pittsburg is carried from Missouri. Instead of incurring the expense of two transportations and paying to distant establishments the cost of production, our own factories ought to meet all our domestic wants and supply the markets of the West.

There have been repeated instances of the importation of lead from New York into Missouri. While the earth beneath our feet is rich with incalculable masses of galena, we satisfy the demands of our internal commerce by importations from the Atlantic frontier. There is no article made of lead that ought not to be produced in our own factories. It is a reproach to our State that the orders of our lead market should be filled one thousand miles from its own metropolis. The few manufacturers who are converting our native ore into the commodities of commerce are rapidly enriching themselves.

Our iron manufactures are altogether inadequate to meet the wants of Missouri. With three mountains of iron in our midst, we import almost all our hardware. Ore yielding 56 per cent. of pure iron can be bought at Pilot Knob for $1.50 per ton. At St. Louis, the price is $3.50 a ton. This ore is carried to Pittsburg, manufactured into nails, reshipped to our market, and sold, exclusive of freight, for $125 a ton. A ton of pig iron is sold to a Boston manufacturer for $65. It is shipped to its destination by way of New Orleans. At the Eastern factory it is wrought into files and then sent back to the starting point. One-half of the material is lost in the process of manufacture, but the half-ton of files costs the St. Louis merchant more than $1,000.

St. Louis imports railroad iron from Cambria, Pa. The cost at the works is $85 a ton: the freight to St. Louis is $20 a ton. Hence our merchants are paying more than $100 a ton for railroad iron which home manufactories ought to supply at one-third of this cost. The Union Pacific has already expended $2,200,000 for rails. Two years ago, this Company paid for rails, delivered at their destination, $140 a ton. The present price is $120 a ton. It is estimated that the railroads of Missouri will need, during the year 1867, 50,000 tons of railroad iron. This will cost, at the low average of $100 a ton, $5,000,000. The expenditure of so large a sum in our own foundries would save freight, pay the price of manufacture to our own machinists, foster domestic industries, and invigorate the business activities of the city. These are only representative facts. Hundreds of such illustrations might be presented. Our iron-mills ought to be equal to our resources. With coal and wood abundant and cheap, with masses of ore which centuries cannot exhaust, St. Louis, or its vicinity, ought to be the great central machine-shop of the West. Our iron-works should rival those of Pittsburg, Birmingham, and Sheffield. The importation of iron manufactures into Missouri should speedily cease. Every kind of tools and machinery, every article of iron or steel, from the hair spring of a watch to the largest engine, from a nail to a 20-inch columbiad, should be fashioned in our own establishments.

Sugar, if not a necessity, is one of the prime luxuries of life. The quantity of sugar consumed in the United States in 1865 was about 800,000,000 pounds. New York, whose refineries exceed in capacity of production those of all the rest of the country, compels the other States to pay tribute to her enterprise. But in this branch of manufacture, St. Louis has made creditable progress. Under

prudent and sagacious management, the St. Louis Refinery—to whose able President I am indebted for the subsequent facts—has expanded into an establishment whose annual transactions amount to more than $3,000,000. In 1866, it refined 22,000,000 pounds of raw sugar. The cost of the sugar imported into the United States in 1866 was—exclusive of the import of three cents a pound payable in coin—$40,000,000 in gold. Missouri will doubtless be able to co-operate with the North West in preventing this large export of treasure.

France and Germany manufacture most of the sugar which they use from beets of domestic growth. This sugar enjoys no immunities. It is secured against foreign competition by no protective tariff. It is subject to the same duties as the product of the tropic cane. And yet it not only sustains itself, but successfully competes with the sugars of Cuba and Java. Of the present crop, 100,000,000 pounds will be exported from France to England. There is no need of going to Havana for our sugars. Our Western prairies can equal the saccharine riches of the Indies. They yield as fruitful crops of the sugar beet as France or Germany. Analyses made at Chicago, and at Washington by the Agricultural Bureau, show that the American beet contains as large a percentage of pure sugar as the European beet. It has also been ascertained that the American beet can, in high latitudes, be preserved through the winter uninjured. A company, with a capital of $160,000 has purchased 2,000 acres of land in Northern Illinois for the purpose of raising beets and manufacturing sugar. The experiment will certainly succeed, if the managers are careful to procure proper machinery, skilful labor and scientific supervision. The quantity of beet sugar which the West is capable of producing may be calculated from the estimated crop of foreign countries in 1865:

Holland	10,000,000	pounds.
Poland and Sweden	30,000,000	"
Belgium	55,000,000	"
Russia	100,000,000	"
Austria	190,000,000	"
Zoll Verein	370,000,000	"
France	510,000,000	"
The aggregate	1,265,000,000	"

is more than one-third of the annual consumption of Europe. In 1866, the sugar crop of France was 540,000,000 pounds.

A cultivation of the sugar beet commensurate with the area adapted to its growth would add hundreds of millions of dollars annually to the wealth of the West. In the development of this new growth, Missouri ought actively to participate. The mildness of our climate is the only obstacle to success. The temperature must be sufficiently cold to prevent germination during the winter months. If the beet sprouts, it becomes unfit for the manufacture of sugar. Our low latitude does not preclude the raising of the beet, and if our Winters are unfavorable to its saccharine qualities,

the crop can be shipped to manufactories further North. Apparently nothing can prevent the culture of the beet from becoming one of the most profitable resources of Missouri. Beet sugar of domestic manufacture is not subject to any excise. Last year, a company of Germans, in Livingston county Illinois, engaged in the manufacture of beet sugar. Mr. Bender gives the following results of the experiment. More than 4,000 tons of beets were raised from 400 acres of land. The cost of cultivation was less than $4 a ton. The varieties of beet were the "Imperial" and "White Silesian". The juice contained from 9 to 13½ per cent. of sugar. The beets yielded 7½ per cent. of superior raw sugar, or 5½ per cent. of a quality fully equal to the refined "B" sugars of New York brand. If better processes of manufacture had been used, this crop of beets would have produced 450,000 pounds of refined sugar. The period of granulation varied from 27 to 72 hours. This experiment, conducted under grave difficulties, justifies sanguine hopes of American success in the manufacture of beet sugar. The French, who make $50,000,000 worth of beet sugar annually, claim that the yield of beets is less fluctuating and more profitable than that of sugar cane.

Sorghum, too, is rich in saccharine elements. From its easy cultivation and great productiveness, this vegetable may yet become one of our most fruitful sources of domestic sugars. The yield is from 120 to 350 gallons of juice per acre. By the aid of late chemical discoveries, the saccharine matter can now be economically granulated. Sugar and syrup, refined by the Clough process, are destitute of the peculiar acrid taste which distinguishes sorghum. If sugar can be manufactured from this material as cheaply as from cane or beet, then sorghum will at once become one of the heaviest and most valuable staples of the State. The quantity of sorghum which Missouri can produce is almost illimitable.

By an improved process of recent discovery, an excellent syrup can be profitably made from corn. A bushel of corn yields three gallons of syrup. The residuum is useful for fodder. If the chemist could only convert starch into sugar, he could transmute our cereals into a wealth surpassing the golden miracles of Midas. Corn would no longer be used for fuel. But sugar can be made from the juice of the cornstalk. There is now a specimen of this kind of sugar in the Laboratory of Washington University. It is not grape but genuine cane sugar. The discoveries of chemistry may yet render this an extensive and lucrative manufacture. But, at present, there is no probability that corn will supplant the cane and beet in the production of sugar.

An exclusively agricultural State never reaches the highest material prosperity. The wealth of nations is largely dependent upon variety of industries. A diversity of occupations creates a higher social intelligence, a more rapid interchange of ideas among the members of a community, better markets, a quicker circulation of money, greater economy of *materiel*, and ampler internal resources. The superintendent of the Cambria Iron Works, at

Johnstown, Pa., recently communicated to the Commissioner of Internal Revenue some very significant and illustrative statistics.

The quantity of food annually consumed by the population dependent upon the company is:

Beef cattle.....	2,000 head	Swine.....	4,000 head
Sheep.....	3,000 „	Flour.....	20,000 bbls.

Johnstown furnishes a ready market for all kinds of agricultural products. The supply of butter, eggs, fruits and vegetables is not equal to the demand. Large quantities are imported from the neighboring markets. Unimproved land within seven miles of the Cambria furnaces is worth from $150 to 300 per acre. Similar land, lying beyond the influence of the Iron Works, is worth but $20 per acre. The effect of this manufactory upon the value of real estate is perceptible for fifty miles. In 1864 and 1865, this establishment paid to its workmen $2,995,270. As the earnings of a manual laborer are mostly expended upon the means of living, a large proportion of this great aggregate must have gone into the pockets of the adjacent farmers.

This instance may be taken as a general illustration of the influence of any kind of manufactory upon a neighborhood. Real estate and the products of the farm are always lowest where manufactories do not exist. Hence the people of Missouri are buying the manufactures of other States at the highest prices, and paying for them with agricultural productions at the lowest rates. It does not require a very profound study of political economy to ascertain that it is not an enriching process to purchase costly foreign fabrics with cheap domestic harvests. With an abundance of raw material at home, we are paying external manufacturers high prices for their goods and incurring the heavy expense of transportation. St. Louis annually imports from Boston alone about $5,000,000 worth of boots and shoes. Instead of this outlay, other communities ought to be tributary to our own shoe factories. We are now paying out what other States ought to pay in. The great value which industry adds to material is all lost to us. The cost of production impoverishes us in just the proportion in which it enriches others.

Different kinds of manufactories utilize the various raw material of the State. At present, only the leading staples can bear the cost of transportation. Many articles of economic value are wasted, simply because there is no home consumption. It does not pay to send them to a remote market—the freight consumes all the profit. Missouri loses millions of dollars every year by this waste of available material. In a community where manufactories are numerous and varied, no commodity is lost. Every kind of raw material which has a commercial value commands its price and is fabricated into articles for the use of man. A thousand substances which home manufactories could transform into useful products now perish unused and worthless.

The gravest arguments of political economy urge Missouri to become a manufacturing State. By the adoption of this policy, we should enhance the value of real estate, raise the price of farm

products, furnish employment to thousands of artizans, utilize all our raw material, coin into wealth the labor of production, pay to our own workmen the cost of fabrication, save the expense of transportation from remote manufactories, improve our own markets, secure the golden patronage of neighboring States, enlarge the amount and quicken the activity of capital, increase the operations and profits of agriculture and commerce, diffuse a knowledge of the arts, and promote intercourse, exchange of ideas, and the progress of Missouri to material greatness.

ST. LOUIS THE COMMERCIAL CENTRE OF NORTH AMERICA.

ST. LOUIS is ordained by the decrees of physical nature to become the great inland metropolis of this continent. It can not escape the magnificence of its destiny. Greatness is the necessity of its position. New York may be the head, but St. Louis will be the heart of America. The stream of traffic which must flow through this mart will enrich it with alluvial deposits of gold. Its central location and facilities of communication unmistakably indicate the leading part which this city will take in the exchange and distribution of the products of the Mississippi Valley. St. Louis is situated upon the west bank of the Mississippi, at an altitude of 400 feet above the level of the sea. It is far above the highest floods that ever swell the Father of waters. Its latitude is 38 deg. 37 min. 28 sec. north, and its longitude 90 deg. 15 min. 16 sec. west. It is 20 miles below the mouth of the Missouri, and 200 above the confluence of the Ohio.

				Miles.
Distance by river	from	St. Louis	to Keokuk is.....	200
"	"	"	Burlington.....	260
"	"	"	Rock Island	350
"	"	"	Dubuque	470
"	"	"	St. Paul	800
"	"	"	Cairo	200
"	"	"	Memphis	440
"	"	"	Vicksburg	830
"	"	"	New Orleans.....	1,240
"	"	"	Louisville	580
"	"	"	Cincinnati.....	720
"	"	"	Pittsburgh.....	1,200
"	"	"	Leavenworth.....	500
"	"	"	Omaha	800
"	"	"	Sioux City.....	1,000
"	"	"	Fort Benton	3,100

Distance by rail	from St. Louis	to	Indianapolis	200
"	"	"	Chicago	280
"	"	"	Cincinnati	340
"	"	"	Cleveland	470
"	"	"	Pittsburgh	650
"	"	"	Buffalo	650
"	"	"	New York	1,000
"	"	"	Lawrence	320
"	"	"	Denver	880
"	"	"	Salt Lake	1,300
"	"	"	Virginia City	1,900
"	"	"	San Francisco	2,300

St. Louis very nearly bisects the *direct* distance of 1,400 miles between Superior City and the Balize. It is the geographical centre of a valley which embraces 1,200,000 square miles. In its course of 3,200 miles, the Mississippi borders upon Missouri 470 miles. Of the 3,000 miles of the Missouri, 500 lie within the limits of our own State. St. Louis is mistress of more than 16,500 miles of river navigation.

This metropolis, though in the infancy of its greatness, is already a large city. Its length is about eight miles, and its width three. Suburban residences, the outposts of the grand advance, are now stationed six or seven miles from the river. The present population of St. Louis is 204,300. In 1865, the real and personal property of the city was assessed at $100,000,000, and in 1866 at $126,877,000.

St. Louis is a well built city, but its architecture is rather substantial than showy. The wide, well paved streets, the spacious levee, and commodious warehouses; the mills, machine shops, and manufactories; the fine hotels, churches, and public buildings; the universities, charitable institutions, public schools and libraries, constitute an array of excellences and attractions of which any city may justly be proud. The Lindell and Southern Hotels are two of the largest and most magnificent structures which the world has ever dedicated to public hospitality. The Lindell is itself a village.*

The appearance of St. Louis from the eastern bank of the Mississippi is impressive. At East St. Louis, the eye sometimes commands a view of 100 steamboats lying at our levee. Notwithstanding the departure of more than 40 boats for Montana, there are at this date 70 steamers in the port of St. Louis. A mile and a half of steamboats is a spectacle which naturally inspires large views of commercial greatness. The sight of our levee, thronged with busy merchants and covered with the commodities of every clime, from the peltries of the Rocky Mountains to the teas of China, does not tend to lessen the magnitude of the impression.

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*On the 30th of last March, this superb edifice was burned to the ground. But the public-spirited citizens of St. Louis have formally resolved to restore it in all its original magnificence. More than $300,000 have already been raised for this object.

The growth of St. Louis, though greatly retarded by social institutions, has been rapid. The population of the city was in

1769	891	1837	12,040
1795	925	1840	16,469
1810	1,400	1844	34,140
1820	4,928	1850	74,439
1828	5,000	1852	94,000
1830	5,852	1856	125,200
1833	6,397	1859	185,587
1835	8,316	1866	204,327

In 1866, 1,400 buildings, worth $3,500,000, were erected in St. Louis. The total number of structures in the city is now about 20,000, and their approximate value is $50,000,000.

At the present rate of decennial increase, St. Louis in 1900 would contain more than 1,000,000 inhabitants. This number certainly seems to exceed the present probability of realization, but the future growth of St. Louis, vitalized by the mightiest forces of a free civilization and quickened by the exchanges of a continental commerce, ought to surpass the rapidity of its past development.

The Real Estate in St. Louis was in

1859 assessed at	$69,846,845	1863 assessed at	$49,409,030
1860 " "	73,765,670	1864 " "	53,205,820
1861 " "	57,537,415	1865 " "	73,960,700
1862 " "	40,240,450	1866 " "	81,961,610

In 1866, the valuation of the Real and Personal property in St. Louis on which the State and Military taxes were levied was $126,877,000.

The amount of Duties collected at the St. Louis Custom House was in

1861	$30,183.96	1864	$76,448.43
1862	20,404.70	1865	586,407.47
1863	36,622.09	1866	785,652.80

The amount of imposts paid at the port of Chicago during the fiscal year ending Dec. 31, 1866, was $509,643.39 in coin.

The duties collected during the same period at this port amounted to $60,176.45 in currency, and 780,706.97 in gold.

Only about one-fifth of the customs levied on goods imported into St. Louis are collected at this point. St. Louis is only a Port of Delivery. The imposts upon our foreign merchandise are chiefly paid at the Ports of Entry.

The present system of foreign importation is unfavorable to the commercial interests of St. Louis. This city should be made a Port of Entry. The goods of St. Louis importers are now subjected to great delay and expense at New Orleans. The municipal authorities do not permit the merchandise to lie on the landing more than five days. If the requisite papers are not made out within that time, the goods are sent to bonded warehouses. This contingency not unfrequently occurs. The press of business or official slowness often delays the issue of the Custom House pass beyond the spec-

ified time, and then the western importer is subject to the serious expense which the drayage to the warehouse, loss of time, and frequent damage to the goods involve. The gravity of this embarrassment forces many of our merchants to pay the duties at New Orleans. This course saves delay and expense. The Revenue laws recognise no distinction between the actual payment of duties and the transportation bond. But practically there is an important difference. In case the impost is paid at New Orleans, the goods are almost always forwarded within five days; but when the merchandise is shipped under a transportation bond, the detention is very frequently ten days, and sometimes a month. In the former instance, any package can be forwarded as soon as the duty is paid; but, in the latter case, the imports cannot be dispatched to their destination till the entire shipment has passed the inspection of the Custom House. In consequence of these injust discriminations against St. Louis, many of our largest importers, notwithstanding the inconvenience of keeping gold on deposit at New Orleans, prefer to pay the duties on their foreign goods at the Port of Entry.

An excessive and unnecessary delay at the New Orleans Custom House recently subjected one of our merchants to a loss of $8 a ton on a shipment of iron.

Last season, another of our importers ordered a large stock of Christmas goods. The articles reached New Orleans in season, but were detained there till after the holidays. They must now be kept, with loss and deterioration, for another year; and before next Christmas, they may become comparatively worthless by changes of mode and new directions of public taste.

These examples illustrate the importance of time in commercial transactions.

The Government could easily obviate all the difficulties which our importers now experience by making St. Louis a Port of Entry. The commercial embarrassments of the present system need immediate removal. In the event of the proposed change, frauds upon the Government could be prevented by reshipping the goods at New Orleans under the eye of the Custom House authorities, keeping them during the voyage under lock and key, and, if necessary, subjecting them on the passage to the surveillance of a Revenue officer. During the rebellion, the shipments of merchandise to southern ports were placed under similar supervision. The satisfactory operation of this system, amid all the liabilities to abuse which exist in times of civil turbulence, warrants the conviction that the proposed plan would, in a period of peace, prove eminently successful.

If Congress respects commercial rights, St. Louis will soon become a Port of Entry.

From the records of the United States Assessor, it appears that in 1865 the sales of 612 St. Louis firms amounted to $140,688,856. For the same year, the imports of this city reached an aggregate of $235,873,875.

The manufactures of St. Louis constitute an important element in our commercial transactions. In 1860, the capital invested in

manufactures was $9,205,205, and the value of the product was $21,772,323. In 1866, the mills of this city made 820,000 barrels of flour.

In 1865, our receipts of grain, including flour, were 17,657,250 bushels.
" 1866, " " " 20,855,280 "
" 1865, exports " " 13,427,000 "
" 1866, " " " 18,680,500 "

St. Louis, though the eighth city in the United States in population, ranks as seventh in the importance of its manufactures. Missouri might profitably imitate the activity of its metropolis.

The extent of our social and commercial intercourse with the rest of the world may be inferred from the postal statistics of this department. In 1865, the number of letters which passed through the St. Louis Post Office for distribution, mail, or delivery, was about 11,000,000. In 1866, the total sum of postage collected, including the sale of stamps, was more than $195,000; and the amount of money orders paid was $145,000. In postal importance, St. Louis is the fifth city of the Union.

The earnings of our railroads indirectly exhibit the magnitude of our trade. For the fiscal year of 1865, the total receipts of the Iron Mountain were $424,700; North Missouri $1,013,000; Missouri Pacific and Southwest Branch, $1,939,000; Hannibal and St. Joseph, $2,000,000. In 1866, the earnings of the Missouri Pacific were $2,670,000. The returns of the Union Pacific for November 1866 were $77,869. The Directors estimate their monthly receipts for 1867 at $100,000.

In 1865, the total number of passengers, by river or rail, who made St. Louis their destination, or a point of transit, amounted to 1,180,000; and, in 1866, 1,250,000.

In 1866, the number of houses and firms doing business in St. Louis was 5,500, and the number of commercial licenses issued during the same year was 4,800.

The tonnage owned and enrolled in the district of St. Louis in 1865 was 97,000 tons. On the first of January 1867, the amount of our steam tonnage, exclusive of a large number of barges and canal boats which made occasional trips, was 106,600 tons, with a carrying capacity of 186,000 tons, and a value of 10,376,000.

Our commerce is aided by ample banking facilities. There are in St. Louis, in addition to 20 private banks, 38 Insurance Companies, 31 incorporated banking institutions, with an actual capital of $15,000,000. The character of our banks stands deservedly high in the financial world. The development of the territories is bringing large deposits to our banks, creating new demands for capital, and extending the channels of circulation.

Our trade with the mountains is large and rapidly increasing. In 1865, 20 boats set out from this port for Fort Benton—which is more than 3,000 miles from St. Louis—with a total freight of 6,000,000 pounds.

In 1866, 50 boats sailed for Fort Benton, with an aggregate tonnage of 10,284 tons. In three instances the cost of assorted goods was as follows:

13 tons of merchandise	$12,000
35 " "	40,000
40 " "	65,000
Mean cost per ton	1,300

The agent who furnishes these facts feels authorized by his experience in the trade of the Upper Missouri to appraise a ton of Montana merchandise at $1,000.

The following table is an approximate estimate, based upon the preceding data, of our commerce with Montana, for the year 1866:

Number of boats	50
" " passengers	2,500
Pounds of freight	13,000,000
Value of merchandise	$6,500,000

The trade across the plains is of still greater magnitude. The overland freight from Atchison alone has increased from 3,000,000 pounds in 1861 to 21,500,000 in 1865.

The Overland Dispatch Company have courteously furnished me with estimates, founded upon their own transactions, of our total commerce with the territories in 1865. These figures do not include the Fort Benton trade.

Number of passengers east and west by overland coaches	4,800
" " " " by trains and private conveyances	50,000
Number of wagons	8,000
" " cattle and mules	100,000
Pounds of freight to Plattsmouth	3,000,000
" " Leavenworth City	6,000,000
" " Santa Fé	8,000,000
" " St. Joseph	10,000,000
" " Nebraska City	15,000,000
" " Atchison	25,000,000
Government freight	50,000,000
Total number of pounds	117,000,000
Amount of treasure carried by express	$3,000,000
" " " by private conveyance	30,000,000

The Overland Express charge 3 per cent. for the transportation of bullion. This high commission and the hostility of the Indian tribes induced many miners to send their gold East by the way of San Francisco to Panama.

In 1866, the total assay of bullion in the United States was $81,389,540. Of this aggregate, $73,032,800 came from the Pacific and Rocky Mountain mines. Upon the usual estimate that 25 per cent. of the gold and silver escapes assay, the entire product of the country in 1866 was $100,000,000. The increase of population in the gold regions, the richness of recent discoveries, and greater activity in mining operations indicate a still larger aggregate in 1867.

In 1866, the westward traffic of Leavenworth amounted to $50,000,000. This aggregate includes the Santa Fé trade, whose

value last year was about $35,000,000. The Western trade of Nebraska City was in

1863	16,800,000	pounds.
1864	23,000,000	"
1865	44,000,000	"
1866	30,000,000	"

The freightage from this point across the Plains required, in 1865, 11,739 men, 10,311 wagons, 10,123 mules, and 76,596 oxen.

So great is the length of the overland routes that the trains are able to make but two through trips a year.

The Union Pacific Railroad already extends to Fort Harker. This materially shortens the extent of overland freightage.

Distance from St. Louis to Fort Harker				508	miles.
"	"	Fort Harker to Denver		372	"
"	"	"	" Salt Lake City	800	"
"	"	"	" Virginia City	1432	"

The length of these lines of transportation, the slowness of our present means of communication, and the magnitude of our teritorial population and trade, forcibly illustrate the necessity of a Pacific Railraod.

The foregoing summaries exhibit the commerce of the Mississippi Valley with the mountains. But while St. Louis does not monopolize the trade of the gold regions, it yet sends to the territories by far the largest portion of their supplies. Even in cases where merchandise has been procured at intermediate points, it is probable that the goods were originally purchased at St. Louis.

During the rebellion, the commercial transactions of Cincinnati and Chicago doubtless exceeded those of St. Louis. The very events which prostrated our trade stimulated theirs into an unnatural activity. Their sales were enlarged by the traffic which was wont to seek this market. Our loss was their gain.

The Southern trade of St. Louis was utterly destroyed by the blockade of the Mississippi. The disruption by civil commotions of our commercial intercourse with the interior of Missouri was nearly complete. The trade of the Northern States, bordering upon the Mississippi, was still unobstructed. But the merchants of St. Louis could not afford to buy commodities which they were unable to sell, and country dealers would not purchase their goods where they could not dispose of their produce. Thus St. Louis, with every market wholly closed or greatly restricted, was smitten with a commercial paralysis. The prostration of business was general and disastrous. No comparison of claims can be just which ignores the circumstances that, during the rebellion, retarded the commercial growth of St. Louis, yet fostered that of rival cities.

Nothing more clearly demonstrates the geographical superiority of St. Louis than the action of the Government during the war. Notwithstanding the strenous competition of other cities, our facilities for distribution and a due regard for its own interests compelled the Government to make St. Louis the Western base of supplies and transportation. During the rebellion, the transactions of

the Government at this point were very large. General Parsons, Chief of Transportation in the Mississippi Valley, submits the following as an approximate summary of the operations in his department from 1860 to 1865:

Amount of Transportation.

Cannon and Caissons	800
Wagons	13,000
Cattle	80,000
Horses and Mules	250,000
Troops	1,000,000
Pounds of Military Stores	1,950,000,000

General Parsons thinks that full one half of all the transportation employed by the Government on the Mississippi and its tributaries was furnished by St. Louis.

From September 1, 1861, to December 31, 1865, General Haines, Chief Commissary of this department, expended at St. Louis, for the purchase of subsistence stores, $50,700,000.

During the war, General Myers, Chief Quartermaster of this department, disbursed at this city, for supplies, transportation and incidental expenses, $180,000,000.

The National exigencies forced the Government to select the best point of distribution. The choice of the Federal authorities is a conclusive proof of the commercial superiority of St. Louis.

The conquest of treason has restored to this mart the use of its natural facilities. Trade is rapidly regaining its old channels. On its errands of exchange, it penetrates every State and Territory in the Mississippi Valley, from Alabama and New Mexico to Minnesota and Montana. It navigates every stream that pours its tributary waters into the Mississippi. It visits the islands of the sea, traverses the ocean, and explores foreign lands.

Before the war, almost all the Western trade in coffee and sugar was carried on by way of New Orleans. The interruption of traffic, by the blockade of the Mississippi River, changed the channels of commerce. By the necessities of the country, trade was forced into unnatural courses. New York, by its limitless capital and enterprise, has obtained a brief control over a trade that rightfully belongs to the West. As soon as the country regains its normal condition and commerce resumes its natural flow, the West will inevitably assert its former and legitimate ascendency in this branch of business. Most of the coffee used in the West is brought from Rio Janeiro. Water carriage is always the cheapest means of transportation. The rail from New York cannot compete with the river from New Orleans. Besides, the Gulf route is the shortest distance between St. Louis and Rio Janeiro. The cost, then, of importing Rio Coffee to this point is much less by New Orleans than by New York. An urgent necessity exists for the establishment of lines of steamers between New Orleans and South American ports.

A direct trade with the West Indies and South America would, from our superior facilities of transportation, not only place the control of the grocery business of the Northwest in our hands,

but also greatly enlarge our exportations. The West consumes far more coffee proportionately than the East. South America uses large quantities of Western flour. There would then be a steady and growing interchange of commodities between these countries.

Missouri flour is the best in the American market. This is an important advantage in favor of St. Louis. It is a well-ascertained fact that the flour made from grain grown in this latitude bears the voyage to South American ports better than any other. The experience of exporters verifies this assertion. Our flour is then not only the finest in the United States for home consumption, but also the best for exportation to tropical countries.

St. Louis ought to cultivate more intimate commercial relations with Brazil. Prior to our acquisition of Russian America, the area of this country was 500,000 square miles larger than that of the United States. Its present population is nearly 10,000,000. Of its principal maritime cities,

Para contains	30,000	inhabitants.
Pernambuco	80,000	"
Bahia	130,000	"
Rio Janeiro	400,000	"

The exports of Brazil are coffee, hides, sugar, caoutchouc, rosewood, mahogany, Brazil wood, cinchona, logwood, cotton, rice, sarsaparilla, sassafras, ipecacuanha, cacao, vanilla, cloves, cinnamon, and tamarinds.

In 1856, the value of the commodities imported from Brazil into the United States was

Brazil wood	$82,000
" nuts	43,000
Rosewood	81,460
Hair	138,240
Sugar	513,450
India rubber	771,320
Raw hides	1,930,220
Coffee	16,091,700

In 1857, this country imported from Brazil 197,000,000 pounds of coffee, worth $17,980,000. In the same year, Brazil exported to foreign markets 256,000,000 pounds of sugar.

In exchange for these valuable commodities, Brazil needs lard, pork, hams, flour, pine lumber, agricultural implements, textile fabrics, and other manufactures. These articles are the chief staples of western growth and production. The Mississippi Valley is able to supply most of the commercial wants of Brazil. St. Louis, as the main distributing point of the West, ought to take the lead in this grand system of mercantile exchanges. A vast commerce must soon spring up between the metropolis of this Valley and the ports of South America. But, at present, our exports to Brazil are entirely disproportioned to our ability to meet the commercial wants of that country. In 1854—55, the trade of England with South America was five times as large as that of the United States.

In 1860, the value of our American imports from Brazil was $20,000,000
" " " exports to " " 6,000,000

These figures show that this country is not a successful competitor for the rich trade of South America. More energetic rivals are enriching themselves with the opulence of this commerce.

The wants of the United States and Brazil are complementary. Each country needs the productions of the other. The West is the fruitful and main source of those commodities which South America requires. St. Louis, as the chief emporium of the Mississippi Valley, is able, by the vast expansion which it can cause in this tropic trade, to turn the commercial balance in favor of the United States and itself become the central distributing point of Brazilian staples.

But St. Louis can never realize its splendid possibilities without effort. The trade of the vast domain lying east of the Rocky Mountains and south of the Missouri river is naturally tributary to this mart. St. Louis, by the exercise of forecast and vigor, can easily control the commerce of 1,000,000 square miles. But there is urgent need of exertion. Chicago is an energetic rival. Its lines of railroad pierce every portion of the Northwest. It draws an immense commerce by its network of railways. The meshes which so closely interlace all the adjacent country gather rich treasures from the tides of commerce. Chicago is vigorously extending its lines of road across Iowa to the Missouri river. The completion of these roads will inevitably divert a portion of the Montana trade from this city to Chicago. The energy of an unlineal competitor may usurp the legitimate honors of the imperial heir.

St. Louis can not afford to continue the masterly inactivity of the old *regime*. A traditional and passive trust in the efficacy of natural advantages will no longer be a safe policy. St. Louis must make exertions equal to its strength and worthy of its opportunities. It must not only form great plans of commercial empire, but must execute them with an energy defiant of failure. It must complete its projected railroads to the mountains, and span the Mississippi at St. Louis with a bridge whose solidity of masonry shall equal the massiveness of Roman architecture, and whose grandeur shall be commensurate with the future greatness of the Mississippi Valley. The structure whose arches will bear the transit of a continental commerce should vie with the great works of all time, and be a monument to distant ages of the triumph of civil engineering and the material glory of the Great Republic.

Since these sentences were written, a company, composed of men of large means and sterling integrity, has been incorporated for the purpose of erecting a bridge across the Mississippi at this point. The executive and financial ability of its members is a guarantee of efficient action and an early accomplishment of this great work. The length of the bridge, together with its approaches, will be about 3500 feet, and the probable cost $5,000,000. The material of the structure will be steel. Chas. K. Dickson is President of the Company, and James B. Eads, the distinguished inventor, is Chief Engineer.

The initial steps for the erection of a bridge across the Missouri at St. Charles have already been taken. The work should be pushed forward with untiring energy to its consummation.

The iron, stone and timber necessary for these structures can be obtained within a few miles of St. Louis, and the greater part of the material can be transported by water. The construction of public works whose cost would be millions of dollars would afford employment to thousands of laborers, and give fresh impulse to the prosperity of St. Louis.

A full and persistent presentation of the superior claims of Carondelet ought to induce the Government to establish a naval station at that point. The supply of labor and *materiel* which a navy yard would require would be another source of wealth to Missouri and its metropolis.

The effect of improvements upon the business of the city may be illustrated by the operations of our city elevator. The elevator cost $450,000, and has a capacity of 1,250,000 bushels. It is able to handle 100,000 bushels a day. It began to receive grain in October 1865. Before the first of January 1866, its receipts amounted to 600,000 bushels, 200,000 *of which were brought directly from Chicago.* The total receipts at the elevator in 1866 were 1,376,700 bushels. Grain can now be shipped, by way of St. Louis and New Orleans, to New York and Europe twenty cents a bushel cheaper than it can be carried to the Atlantic by rail.

The facilities which our elevator affords for the movement of cereals have given rise to a new system of transportation. The Mississippi Valley Transportation Company has been organized for the conveyance of grain to New Orleans in barges. Steam tugs of immense strength have been built for the use of the company. They carry no freight. They are simply the motive power. They save delay by taking fuel for the round trip. Landing only at the large cities, they stop barely long enough to attach a loaded barge. By this economy of time and steady movement, they equal the speed of steamboats. The Mohawk made its first trip from St. Louis to New Orleans in six days, with ten barges in tow. The management of the barges is precisely like that of freight cars. The barges are loaded in the absence of the tug. The tug arrives, leaves a train of barges, takes another and proceeds. The tug itself is always at work. It does not lie at the levee while the barges are loading. Its longest stoppage is made for fuel. The power of these boats is enormous. The tugs plying on the Minnesota river sometimes tow 30,000 bushels of wheat apiece. The freight of a single trip would fill 85 railroad cars.

Steamboats are obliged to remain in port two or three days for the shipment of freight. The heavy expense which this delay and the necessity for large crews involve is a grave objection to the old system of transportation. The service of the steam tug requires but few men, and the cost of running is relatively light. The advantages which are claimed for the barge system are exhibited by the following table:

	Tug and barges.	Steamboats.
Stoppage at intermediate points.....	2 hours	6 hours.
" " terminal "	24 "	48 "
Crew.....	15	50
Tonnage.....	25,000 tons	1,500 tons.
Daily expense.....	$200	$1,000
Original cost.....	$75,000	$100,000

In addition to the ordinary precautions against fire, the barges have this unmistakable advantage over steamboats, they can be cut adrift from each other, and the fire restricted to the narrowest limits. The greater safety of barges ought to secure for them lower rates of insurance. The barges are very strongly built, and have water tight compartments for the movement of grain in bulk. The transportation of grain from Minnesota to New Orleans by water costs no more than the freightage from the same point to Chicago. After the erection of a floating elevator at New Orleans, a boat load of grain from St. Paul will not be handled again till it reaches the Crescent City.

At that port, it will be transferred by steam to the vessel which will convey it to New York or Europe. The possible magnitude of this trade may be inferred from the fact, that in 1865 Minnesota alone raised 10,000,000 bushels of wheat. Three quarters of this harvest could have been exported, if facilities of cheap transportation had offered adequate inducement. In 1866, higher prices—which produced the same practical result as cheaper freightage—led to the exportation of 8,000,000 bushels. Some of this grain belonged to the crop of the preceding year. But this fact does not at all affect the question of carriage.

From the 1st of May to the 25th of December 1866, the tow boats of this city transported 120,000 tons of freight. This new scheme of conveying freight by barges bids fair to revolutionize the whole carrying trade of our Western waters. It will materially lessen the expense of heavy transit, and augment the commerce of the Mississippi River in proportion to the reduction it effects in the cost of transportation. The improvement which facilitates the carriage of our cereals to market, and makes it more profitable for the farmer to sell his grain than to burn it, is a national benefit. This enterprise, which may yet change the channel of cereal transportation, shows what great results a spirit of progressive energy may accomplish.

The mercantile interests of the West imperatively demand the improvement of the Mississippi and its main tributaries. This is a work of such prime and transcendent importance to the commerce of the country, that it challenges the co-operation of the Government. A commercial marine which annually transfers tens of millions of passengers, and cargoes whose value is hundreds of millions, ought not to encounter obstructions which human effort can remove. The yearly loss of property, from the interruption of communication and wreck of boats, reaches a startling aggregate.

For the accomplishment of an undertaking so vital to its municipal interests, St. Louis should exert its mightiest energies. The

prize for which competition strives is too splendid to be lost by default. The Queen City of the West should not voluntarily abdicate its commercial sovereignty.

If the emigrant merchants of America and Europe, who recognize in the geographical position of St. Louis the guarantee of mercantile supremacy, will become citizens of this metropolis, they will aid in bringing to a speedier fulfilment the prophecies of its greatness. The current of Western trade must flow through the heart of this valley.

In the march of progress, St. Louis will keep equal step with the West. Located at the intersection of the river which traverses zones, and the railway which belts the continent, with divergent roads from this center to the circumference of the country, St. Louis enjoys commercial advantages which must inevitably make it the greatest inland emporium of America. The movement of our vast harvests and the distribution of the domestic and foreign merchandise required by the myriad thousands who will, in the near future, throng this valley, will develop St. Louis to a size proportioned to the vastness of the commerce it will transact. This metropolis will not only be the center of Western exchanges, but also, if ever the seat of Government is transferred from its present locality, the capital of the nation.

St. Louis, strong with the energies of youthful freedom, and active in the larger and more genial labors of peace, will greet the merchants of other States and lands with a friendly welcome, afford them the opportunities of fortune, and honor their services in the achievement of its greatness.

RAILROADS OF MISSOURI.

The railroad system of Missouri is exhibited in the following tabular statement:

Railroads.	Miles.
Cairo and Fulton	37
Missouri Valley	52
Atlantic and Pacific	88
Iron Mountain	87
North Missouri	168
Hannibal and St. Joseph	233
Missouri Pacific	283
Total length of railroads in operation within the State	948

A vast enlargement of our railroad facilities is contemplated. More than 10,000 miles of new lines have been projected on the west side of the Mississippi. A quarter of a century may elapse before the completion of these extensions; yet the very conception of them shows that the public mind is alive to the importance of

ampler means of communication with the States and Territories of the far West. Most of these roads have received grants of land from the Government, and upon some of the lines the work is already far advanced. The terminal points of the most important roads are:

Superior City and New Orleans, *via* St. Paul, St. Louis and Memphis.

St. Louis and San Francisco, *via* Kansas City and Salt Lake.

Kansas City and Fort Benton, *via* Omaha.

Leavenworth and Galveston, *via* Lawrence.

St. Louis and San Francisco, *via* Albuquerque.

HANNIBAL AND ST. JOSEPH RAILROAD.

This road is 233 miles long. It traverses one of the finest sections of the State. It gives an outlet to a region rich in agricultural productions. It is of prime importance not only to local business, but to that through trade with the far West whose initial point lies north of St. Louis. It is an incalculable advantage to North Missouri. Without it, the products of the interior would lose much of their value.

This road has received a large grant of public lands. The tract still owned by the company contains nearly 500,000 acres. These lands are rich in agricultural and mineral wealth. They are situated in a temperate and healthful climate. They are accessible and cheap. The price varies from $2.40 to $15.00 an acre. To the settler who is unable to pay cash, a credit of two or even ten years is granted. No defect of title impairs the value of these lands. The act of Congress, vesting in this company the right of ownership, is an absolute guarantee of title. The fare of immigrants who pass over the Hannibal and St. Joseph railroad in quest of a location is refunded in the event of their buying lands of the Company. The liberality of the terms of payment, as well as the essential value of the property, ought to procure an early sale of these valuable freeholds.

North Missouri is largely peopled with settlers from New England. Colonies of Eastern men are forming communities throughout this section of the State, and reproducing the institutions of New England upon the prairies of the West. Some large-minded and opulent Eastern gentlemen, who hold their wealth in trust for the accomplishment of beneficent objects, are generously fostering the growth of Western culture. Prominent among these is Nathaniel Thayer, Esq., of Boston. Several years ago, he endowed a Professorship in Washington University, and now, in liberal co-operation with other gentlemen, he has organized the "Thayer Institute" at the town of Kidder. It is the design of the founders to establish an institution of sound learning, and to insure its life by an ample endowment.

The educational facilities which exist in the New England towns along the line of the Hannibal and St. Joseph railroad are justly entitled to the consideration of Eastern men who are seeking homes in Missouri.

NORTH MISSOURI RAILROAD.

This road runs from St. Louis to Macon. The length is 168 miles. It was finished in 1859 and cost $7,638,195. It will be extended during the present year to the Iowa State line. The distance from Macon is 65 miles. The North Missouri will ultimately connect by means of the northern lines with all the large towns upon the upper Mississippi, and by its junction with the Cedar Rapids and Iowa Central railroads enjoy the advantage of a double connection with St. Paul. A branch of this road from Moberly to Leavenworth is now under construction. It is 147 miles long. It is to be completed next year. It will run through Brunswick, Richmond, Kansas City and Leavenworth; and connect, by the extension of the Missouri Valley railroad with Council Bluffs and Sioux City.

Another branch running from Centralia to Columbia—a distance of 22 miles—will be finished by the middle of next July. This road lies wholly within the limits of Boone County.

The North Missouri is now dependent for its Western connections upon the Hannibal and St. Joseph railroad. But after the completion of the West Branch from Moberly, it will have a continuous independent line to Leavenworth. With its extensions, it will be the longest railroad in Missouri. There are no richer lands in the State than those which this road traverses.

The railroad bridge at St. Charles is now in process of erection. Its length will be 1500 feet, and its ultimate cost $500,000. It will be finished in 1868.

The gauge of the North Missouri is now 5 feet 6 inches. During the present summer the gauge will be changed to 4 feet 8½ inches. This is the width of the Hannibal and St. Joseph track, of the Union Pacific, and of all the railroads in Iowa. After this alteration is made, the North Missouri can make all its northern and western connections without change. The same train can run from St. Louis to Leavenworth. The 18 new engines which the Company are now putting on the road increase the number of their locomotives to 42.

On the main line to Macon, the amount of private and municipal subscription was $2,137,400, and the loan of State credit $4,350,000.

By subsequent legislation, the State released its lien upon the road for the $4,350,000, and permitted the Company to issue first mortgage bonds for $6,000,000. The holders of these bonds now possess the first lien on the completed road, and are still further secured by a first mortgage on the extension to the Iowa State line, on the new West Branch, and on the St. Charles bridge.

By the terms of the law, the $6,000,000 are appropriated to specific objects:

For the erection of the St. Charles Bridge..... $500,000
" " extension to the Iowa State line 1,500,000
" " construction of the West Branch 4,500,000

When all the extensions now under contract are completed, the North Missouri will have the following length of line:

From St. Louis to Macon	168 miles
" Moberly to Leavenworth	141 "
" Macon to Iowa line	65 "
" Kansas City to Leavenworth	22 "
" Centralia to Columbia	22 "
Total length of the main line and branches	418 "

The estimated cost of these extensions will be:

From Moberly to Leavenworth	$4,000,000
" Macon to Iowa State line	1,266,000
" Centralia to Columbia	500,000
St. Charles Bridge	500,000
Total cost	$6,266,000

To meet these expenses, the North Missouri has the following resources:

First mortgage 7 per cent. bonds	$6,000,000
County and private subscriptions	1,841,000
25,000 acres of land in Chariton county	250,000
Other property	231,000
Total resources	$8,322,000
Whole cost and assets of the road	$15,960,195

The inequalities of a railroad impair its efficiency. They squander motive power. They augment the cost of transportation. The carrying capacity of the North Missouri is greatly enlarged by the lightness of its grades. The advantage of its comparatively level track is distinctly visible in the economy of freightage and of effective power.

From its extent and location, the North Missouri will not only facilitate trade and travel, but actively promote a denser settlement of the fertile lands through which it runs.

PACIFIC RAILROAD.*

The Pacific railroad will be prominent among the public works of all time. It will be the longest railway in the world. The main line will be 2300 miles long, and its branches 1000 miles more. A continuous track, 3400 miles in length, will unite New York and San Francisco. The cost of the rails alone will be more than $30,000,000, and the expense of the completed road will be about $150,000,000. A force of 20,000 pioneers is leveling this highway for a royal progress of the Great Republic. The road is now advancing at the rate of 300 miles a year. Upon the Pacific slope, the work is prosecuted with great vigor. From Sacramento, the line already extends eastward 114 miles. It is now crossing the heights of the Sierra Nevada. The passage of this range encounters great obstacles and exhibits grand triumphs of civil engineering.

* This and the "Union Pacific Railroad" are titles which do not strictly fall within the scope of an article on the "Railroads of Missouri." But the Pacific Railroad is so intimately connected with the prosperity and development of Missouri, that the temptation to discuss it was too great for successful resistance.

The road spans profound chasms, creeps along the dizzy verge of precipices, and pierces the solid buttresses of the mountains. The sublimities of this region are scarcely inferior to the grandeurs of the Yosemite Valley.

Some of the mountains along whose base this road runs are said to be 12,000 feet in height. A recent article in the New York World furnishes some very interesting statistics of the Central Pacific railway. This road was begun in 1863. The initial point is Sacramento. This city stands at the head of navigation on the Sacramento river. The ease of communication afforded by a navigable stream obviated the necessity of beginning at San Francisco. But, under a charter authorising the construction of a railway between these two cities, 97 miles of road have been already built. The central Pacific is now finished to the crest of the Sierra Nevada. The Company intend to complete the road from

Sacramento to Virginia City	156 miles		in 1867
" " Austin	320 "		" 1868
" " Salt Lake City	585 "		" 1870

The estimated cost and equipment of the road from Sacramento to the state line of California are estimated at $14,000,000. For 15 miles, the pathway up the ascent of the Sierra Nevada has been cut in solid granite. During the progress of the work, the daily consumption of powder was 350 kegs, worth $1400. During the fall 1866, the working force was 8,000 Chinese. The number of horses and mules employed upon the road was 1200. This spring the Company intend to increase their industrial force to 12,000 or 15,000 men.

In 1866, the earnings of the Central Pacific were:

From Sacramento to Colfax,	62 miles,	May,	$65,000
" " "	"	June,	67,000
" " Alta,	69 "	July,	85,000
" " "	"	August,	112,000
" " "	"	September,	114,000
" " "	"	October,	127,000

From Sacramento to Cisco, the tarif of rates is $9,50 for passengers, and $14.00 a ton for freight. But even at these high prices, there is a saving of 20 per cent. on the former cost of carriage. The Express Company of Wells and Fargo charge on freight

From San Francisco to Austin,	320 miles,	50 cents in gold *per pound.*
" " Salt Lake,	710 "	75 "	"	"

In Nevada, green fire wood is $13 a cord in gold, and the timber necessary for mining purposes costs from $30 to $45 per hundred. The quantity of lumber requisite for this use may be inferred from the alleged fact that the mine of Gould and Curry contains as much timber as Virginia city, a wood-built town of 15,000 inhabitants. Yet, notwithstanding the great expense of material and transportation, some of the mines of Nevada pay a monthly dividend of 2 to 5 per cent. The Gould and Curry Mining Company think that they could have saved in 1864, by the relative economy of railroad carriage, $2,000,000 in gold. The annual cost

of transportation to Nevada is $10,000,000. In 1866, the freight on $6,000,000 from the East to Montana was $2,000,000.

These facts disclose the grave difficulties which retard the growth of our Territories, and prompt the utmost vigor in the prosecution of the Pacific railroad.

Official assurance is given that the entire line will be finished in 1871. The terms of the charter require its completion by the first of July 1876.

The glory of this great achievement will chiefly belong to St. Louis. The conception of the enterprize originated in this city. The first capital was advanced by our own merchants. With rare foresight and an honorable faith in the ultimate success of their great undertaking, our public-spirited citizens persevered in despite of every discouragement and opposition, till at last popular favor and financial prosperity have crowned their efforts.

The prophecy of Benton is rapidly approaching its fulfilment. Soon the Atlantic and Pacific will be bound together by railroad ties. This colossal work will be a proud monument of American energy. Its consummation will inaugurate a new era in the history of commerce. In anticipation of its completion a New York company, with a capital of $30,000,000, has just established a regular monthly line of steamers between San Francisco and China. The Colorado made its first voyage from San Francisco to Hong Kong in 27½ days. The mail from Japan now reaches the Pacific coast in three weeks. The journey from New York to Hong Kong, by way of London and Suez, takes 56 days; but by the Pacific Railway, the time will be only 35 days.

This inter-oceanic railroad will doubtless become the highway of travel between Europe and the Orient. Between the termini of the Pacific Railroads, there is an interval of about 750 miles. Conveyance by stage over this long and difficult line is relatively slow. Yet, notwithstanding this great impediment, England has already sent its China mail across this Continent. The economy of distance and time, the personal comfort of a passage lying wholly in the temperate zone, and the avoidance of the heat and perils of tropic seas will secure to this route the main patronage of the travel between the maritime frontiers of Europe and Asia. Time, too, is often an important element in commercial transactions. The Pacific Railroad will afford the quickest transit between the opposite borders of the Eastern hemisphere. The interchanges of merchandise of small bulk and great value will be carried on over this road. Commodities liable to be injured by the temperature of the tropics will seek the safety of this northern line of transportation. The temperate calm of Pacific waters in the latitude of San Francisco and Shanghai is an additional safeguard of life and cargo.

The Pacific railroad will be a mighty agency in the development of that vast tract of country which lies between the Rocky Mountains and the Sierra Nevada. The discovery of gold and silver in the canons of these mountains gave the initial impulse to population —the Pacific railway will accelerate the movement. While the acquisition of wealth will still be the chief motive, the facility of

reaching the mountains by means of this road will strengthen the prime incentive. Populous States and well ordered governments now exist in regions which but few years ago were only trackless solitudes. The presence of gold in the Rocky Mountains has suddenly adorned their slopes with a flourishing civilization. The lure of riches and the convenience of the railroad will people these fastnesses, and add new members to the sisterhood of States. Under the action of these twofold motives, new communities will arise. Happy homes, social order, and public wealth will soon be found in the recent wilderness. The development of the mountain region will swell our national resources with ingots of precious metal, and probably require, for the accommodation of local travel and commerce, the construction of other roads to the Pacific.

MISSOURI PACIFIC RAILROAD.

This road runs from St. Louis to Kansas City. It is 283 miles long. The initial steps having been taken in 1849, active work was begun Aug. 2, 1851, and the last rail was laid Sept. 19, 1865.

The cost of construction was	$11,418,794
" " rolling stock	2,049,674
Total cost of the road	$13,468,468

From the inception to the completion of this road, every step of progress was retarded by difficulties of the gravest character. Financial embarrassments, disastrous accidents, and rebel raids have severely tested the ability and resources of the Company. In the fall of 1864, the Missouri Pacific suffered terribly from the devastations of civil war. The rebels, besides inflicting other extensive injuries upon the road, destroyed 11 bridges whose total length was more than 3250 feet. The aggregate damage from this incursion was $500,000. Yet the magnitude of these losses and impediments has but increased the honor of ultimate success. The dauntless purpose and administrative skill which surmounted so great obstacles are worthy of public and grateful remembrance.

The funds which enabled the Directors to complete the road were derived from the following sources:

State Bonds	$7,000,000
County subscriptions	2,845,630
Missouri Pacific Railroad Bonds	1,500,000
Private subscriptions	764,000
St. Louis County Bonds	700,000

Some of these loans were effected with the greatest difficulty. Aid was at times granted only when it became apparent that, in the event of refusal, the enterprise would have to be abandoned. The reluctance of the Legislature to pledge the public credit for the completion of the road did not arise from unfriendliness, but from the fiscal embarrassments of the State. Only a resolution undismayed by disaster and an ability resourceful in difficulties could have carried the road successfully through these financial emergencies.

During the rebellion, the main line and the Southwest Branch were of incalculable importance to the country. The extent of this service may be inferred from the fact, that, in 1863, '64 and '65, the net receipts for Government transportation were $758,550. The terrible ravages of the rebel armies would have been much worse, had it not been for the facilities of rapid movement and sudden concentration which these roads afforded to the national forces.

The present equipment of the Missouri Pacific is:

Mail cars	7
Baggage and Express cars	17
Caboose cars	29
Passenger cars	41
Locomotives	47
Freight cars	641

The total quantity of iron rails used in the construction and repair of this road is 27,600 tons. The service of the line requires a constant force of 1500 men.

The Company is purposing, at an early day, to change the width of the track to 4 feet 8½ inches. The road will then have the same gauge as that of the Union Pacific. When the contemplated change has been made, this road will form an unbroken and uniform part of that magnificent line which will soon stretch to the Pacific shore. The road is now doing an immense and steadily increasing business. The success and general utility of the Missouri Pacific long since justified the action of the Legislature in granting the loan of the public credit. The issue of State bonds, ensuring the capital necessary to the completion of the road, was an act of legislative wisdom. The influence of this railway upon the prosperity of Missouri has been signally beneficial. We hope that public honor and private wealth will reward the energetic and farsighted men who, under such grave discouragements, carried forward this road to a successful consummation.

UNION PACIFIC RAILROAD, EASTERN DIVISION.

The State of Missouri has a deep and permanent interest in the Union Pacific railway. This line was contemplated in the Pacific Railroad Act of 1862. In the original bill, it constituted the St. Louis connection of the Union Pacific railroad, whose initial point was the 100th meridian of longitude. By later legislation in 1864 and 1866, the junction of the "Northern or Omaha" road and the "Kansas or Smoky Hill" road was changed to a point "fifty miles west of the meridian of Denver" in Colorado.

The Union Pacific railway, with its connections, is the shortest line between the mountains and the Mississippi river. It lies 200 miles south of the Omaha Branch, and will be comparatively free from the snows which will obstruct the Northern line. In its entire length, it crosses no navigable stream. It must inevitably become the trunk line across the continent. This road is a continuation of the great central chain of railways running west from the

Atlantic metropolis. From New York to San Francisco, the main road deviates but little from the base line of the fortieth parallel.

The work upon the Union Pacific railway, Eastern Division, was begun in 1863, but owing to the war and various legal difficulties was not vigorously prosecuted until July 1865, when the present organization assumed control. The following data in regard to the road have been furnished by one of the officers of the Company. The line of the Union Pacific railway, as located under the present law, starts from the Missouri river at the western terminus of the Pacific railroad of Missouri and runs almost due west up the rich valleys of the Kansas and Smoky Hill rivers, and from the head-waters of the latter across the plains to Denver, and thence along the base of the mountains to the point of junction with the Northern Branch. The length of this Division is about 700 miles.

Of this distance, 225 miles have been completed, fully equipped, and accepted by the United States Government. A continuous railway now extends 508 miles west from St. Louis. A branch road, 31 miles long, has also been built from Lawrence to Leavenworth.

The Union Pacific Company contemplate the construction of a railroad to Santa Fé. They purpose to begin the preliminary survey at an early date. The initial point is Filley, a town 200 miles east of Denver. The distance to Santa Fé is about 400 miles. This road would give an outlet to the productions of New Mexico, open the territory to the invasion of enterprise, bring its resources within the reach of commerce, and attract a rich trade to St. Louis. It is the design of the Company ultimately to extend this road through Arizona and Southern California to the Pacific. The same grave considerations of public economy, self-defence, and material development which led the Government to lend its credit to the central road should induce it to grant subsidies to this Southern line.

Contracts have been made to complete the main road to the 885 mile-post west of the Missouri river by December 31, 1867. 225 miles of track, extending from Kansas City to Fort Harker, are now laid. Beyond the present terminus, 90 miles of graded road are ready for the rails.

The cross-ties of the Pacific Railroad, Eastern Division, are made of hard wood. The rails weigh 56 pounds per lineal yard, and are all of American manufacture. 22,000 tons of bars have been already used in the construction of this road, and 14,000 more are now on their way.

By the first of June, this road will have the following equipment:

Baggage and Express cars	5
Passenger cars	14
Locomotive engines	25
Freight cars	418

The earnings of the road for the quarter ending December 31, 1866, exceeded $200,000. It is believed that the receipts during 1867 will average $100,000 per month.

The subsidies with which the Government aids the construction of this portion of the Pacific railroad are:

1st. A loan of $16,000 for each mile of railroad and telegraph line, to be delivered to the company as each section of 20 miles is completed and accepted by the government. It consists of 30 years, U. S. 6 per cent. bonds, secured by a second lien. The interest and principal are guaranteed by the United States. The law permits the company to issue bonds of an equal amount per mile, secured by a first mortgage having priority over the government lien.

2nd. A grant of 12,800 acres of land per mile of finished road. It gives alternate sections extending 20 miles on each side of the road.

The Bonds issued to this division of the Pacific railroad mature in 30 years. The interest on these Bonds is paid by the U. S. Government. To secure the repayment of this interest, the Government deducts and retains one half of the cost of its own transportations over the road. The amount of mails, troops, munitions of war, and Indian supplies, carried over this line, is very large. Before the close of the coming summer, 27,000,000 pounds of Government freight will be shipped by this route to the territories. The total amount of interest which the Government has paid on the bonds of this road, up to March 1, 1867, is $97,000. The cost of Government transportation, from Oct. 15, 1866, to March 1, 1867, is $55,000. Of this sum, the Government has reserved $27,000. This amount is more than 30 per cent. of all the interest which the Government has paid on the Bonds of the road. After the present year, the transportation of Government supplies will probably refund to the national treasury all the money advanced for the payment of the interest on these Bonds. An examination of the business of the road discloses the unexpected and gratifying fact, that this great national work will be accomplished without cost or embarrassment to the Government. In the event of an Indian war, or of an invasion of the Pacific coast, this railroad would be invaluable to the financial interests and military success of the nation. It would lessen the expenses, and facilitate the prosecution, of a frontier war. It would give strong material guarantees for the perpetuity of the Union. The completion of this national highway will strengthen the alliance of the States with iron bands, and develop our Western wilderness into populous commonwealths.

In addition to the grant of public lands, the company has bought from the Delaware and Pottawatamie tribes of Indians about 600,000 acres in the heavily timbered regions of Eastern Kansas. This purchase comprises some of the finest farming lands in the State. Nearly 1,000,000 acres of valuable lands, all lying east of Fort Riley, are now offered by this company for sale to actual settlers. The progress of the Pacific railroad and the natural attractions of Kansas have exerted so marked an influence upon immigration, that the actual increase in the population of that State, during the year 1866, was, according to the estimate of Gov. Crawford, 50,000 people.

These princely subsidies from the Government and the financial strength and executive energy of this corporation justify the expectation that the work will be completed in the time prescribed by law.

ATLANTIC AND PACIFIC RAILROAD.

This road was formerly called the Southwest Branch, but its ownership and title have recently been changed. It runs from Franklin—a town on the Missouri Pacific, 37 miles west of St. Louis—to the Gasconade river. The length of the independent line is 88 miles.

The extension of the Atlantic and Pacific is making rapid progress. A bridge nearly 800 feet long will soon span the Gasconade. A force of 1500 men is now at work upon the continuation of the road. The distance from the Gasconade river to the Arkansas line is about 200 miles. The cost of extending the road to the borders of the State is estimated at $6,000,000. The amount which the development of the mineral resources of Southwestern Missouri would add to our common wealth cannot be calculated, but the rise in the value of real estate which the completion of this road would cause has been appraised at $25,000,000. The extension of this line from its present terminus merely to the southwest corner of Missouri would be an incalculable benefit. The trade of the North western roads may be partially diverted from St. Louis by the construction of rival lines. But the Atlantic and Pacific, by its advantages of situation, will compel all connecting lines to be subsidiary to itself; and its commerce, constantly swelled by the traffic of tributary roads, must necessarily flow to St. Louis. The extension of this road would open to settlement vast tracts of valuable land, and by the impulse of cheap transportation lead to an extended development of the rich mines of Southwestern Missouri.

ST. LOUIS AND IRON MOUNTAIN RAILROAD.

"The St. Louis and Iron Mountain" and "The Cairo and Fulton" railroads have recently been sold by order of the Governor of Missouri for the redemption of funds which the State advanced them.

The amount of State loan to the former road is.....	$3,501,000
" " " latter "	650,000
" interest for six years, to Jan. 1st 1867	1,494,360
Total indebtedness to the State.....	$5,645,360

The State bought these roads Sept. 27, 1866, and in November following sold them through Commissioners to Messrs. McKay, Reed and Co. of Pittsburg for $900,000, payable in Missouri Bonds. The deeds were made by the State Jan. 9, 1867; and, on the 12th of the same month, the purchasers sold the roads to Hon. Thomas Allen of St. Louis, for $1,275,000.

The Iron Mountain railroad, running from St. Louis to Pilot Knob, is 87 miles long; and cost, exclusive of discount, interest and commissions, $4,356,800. The quantity of rails used in the con-

struction of this road is about 10,000 tons. Its freight is mostly iron ore, pig metal, lead, barytes, lumber, and wood. In 1865, its earnings were $424,700; and, in 1866, they were probably still larger.

The Cairo and Fulton railroad begins at Bird's Point on the Mississippi, and will eventually terminate on Red River in the Southwest corner of Arkansas. But 26 miles of the road are now finished. It cost, exclusive of incidental expenses, $680,300. It has a land grant of about 500,000 acres. The country through which it runs produces a rich growth of timber, corn, and cotton. It is estimated that, in 1866, 60,000 bales of cotton—including probably some shipments from contiguous counties in Arkansas—were brought from Southeast Missouri.

The present proprietor of these two roads will consolidate them under the style of "The St. Louis, Iron Mountain, and Southern Railway", and make an unbroken line from St. Louis to Belmont, opposite the terminus of the Mobile and Ohio Railroad. The conditions of the purchase exact the completion of this road within five years; but Mr. Allen feels confident of his ability to finish it in less than half of that time. The cost of the road will be about $4,500,000.

An ultimate extension of this line to Helena is contemplated. In fact, the initial steps have already been taken. The Legislature of Arkansas has recently revised the original charter of the road, and granted ampler privileges. The liberality of these franchises has led to the organization of a company, and the subscription of $1,000,000 in capital and *materiel*. The estimated expense of this road is $5,000,000. The distance from Ironton to Helena is 230 miles. The country through which the projected line passes is productive, well-watered, and generally level. Even where inequalities exist, the grades are relatively light.

The completion of this road to Helena is highly important to St. Louis. It would greatly enhance our municipal prosperity. Vast commercial interests depend upon the success of this undertaking. Between St. Louis and Helena, navigation in the summer season is sometimes embarrassed by low water and sandbars; and, in the winter-time, it is frequently obstructed by floating ice. Though the intervals of interruption are temporary, yet the briefest suspension of our Southern communications inflicts a serious injury upon the mercantile interests of St. Louis.

The continuation of the Iron Mountain road to Helena would open an avenue to a point below which navigation is never impeded by ice or low water. An outlet to the great markets of the South, direct, available, and always free from obstructions, would soon develop our winter trade into summer proportions.

EDUCATION.

No treatment of the material interests of a State can be complete, without some discussion of the spiritual forces which vitalize them. Public wealth is often a cause of national decay. Genuine prosperity implies the guidance of intelligence and morality. No community can greatly flourish where ignorance and dishonesty prevail. The political economy which ignores the intellectual and moral forces of society discards the prime essentials of public welfare. The commonwealth is only supremely great when it is actuated by enlightened motives and imbued with the spirit of a Christian civilization.

During the war, domestic turbulence greatly impaired the efficiency of our common schools. In some of the rural districts, the shock of arms or the distempered condition of the public mind led to a temporary suspension of the schools. But now, since the civil strife which disorganized our educational system has ceased, our schools are resuming their activity. Under the old *regime*, indifference to public culture was a prominent trait. A social system which rested on unjust distinctions of caste and fostered civil inequality would naturally look with disfavor upon the cause of popular education. An aristocracy based upon wrong has an instinctive dread of intelligence. There is a deathless hostility between them. Ignorance is the helpless victim of oppression, but popular enlightenment is the divine victor of injustice. Now, since the feudal impediment to our progress has been removed, we shall advance with a freer movement. A fresh energy invigorates our public polity. A spirit of freedom and progress imparts a new life to our educational system. The people of Missouri are actively reorganizing their public schools. They are striving with a zealous co-operation of individual and legislative efforts, to extend and improve their institutions of learning.

The public schools of St. Louis were organized in 1833, and went into practical operation in 1839. They are now an honor to Western culture. Improved by the best results of experience, taught by an accomplished corps of instructors, and aided with the resources of valuable Public Libraries, they afford to the youth of this metropolis the means of a thorough popular education. The grades of our public schools are based upon a system of rigid classification. They culminate in the High School. Students enter this institution only through the ordeal of a competitive examination. Admittance, therefore, implies exemplary deportment and successful scholarship. The discipline of the High School embraces the higher branches of an English education and the Academic course of Classic culture. The scholarly training of this institution qualifies its graduates for the duties of life or the pursuit of polite learning.

The Normal School in this city affords excellent opportunities for professional discipline. It teaches the philosophy of education as well as the best processes of practical instruction. The profes-

sional success of its graduates shows the effect of trained skill and systematic teaching.

In addition to its public schools, St. Louis has endowed Universities whose excellence obviates the necessity of sending Western youth to Eastern institutions for a liberal education. In one of these Universities, the mathematical course is as full and exhaustive as at West Point, and the standard of scholarship, in the chief departments of study, is scarcely inferior to that of Harvard or Yale.

St. Louis also possesses excellent seminaries for the education of young women. The Mary Institute is virtually a College. To students pursuing the extended course, it offers the main advantages of a liberal culture. It opens to young women fields of study and sources of refined enjoyment from which they have been too long excluded. Such institutions exert a beneficent influence upon society. They add to wealth the graces of polite culture, invest poverty with honorable means of self-support, and enrich every fireside with ampler resources of happiness.

The Polytechnic Institute of St. Louis is a noble monument of private munificence and public usefulness. The building is one of the most expensive and superb structures in the United States. The cost of erection, together with the value of the grounds, was more than $400,000. The edifice is worthy of its use. It will be devoted to the service of practical science. Here the philosophy of the industrial arts will be taught. In these halls, artisans will receive gratuitous instruction in those scientific principles which underlie every mechanical pursuit. The processes which mere experience can but imperfectly discover at the close of a business life may here be accurately learned at the beginning. The apprentice and artificer can here acquire briefer solutions of mechanical problems, cheaper methods of manufacture, and the latest appliances of chemical science to the industrial arts. Poverty will debar no student from the halls of this institution. The instruction is free. A mastery of the practical principles taught in the Polytechnic Institute is a strong guarantee of business success.

There is no reason why St. Louis, with its admirable system of public schools and higher institutions of learning, should not become the center of Western culture. The metropolis of the West should diffuse throughout this valley those principles of mental and moral enlightenment on which our republican civilization rests.

The State University of Missouri, located at Columbia, was seriously injured by the ravages of civil war. Insurgent violence caused a suspension of the literary exercises and a partial destruction of the buildings. But the appropriation granted by the last Legislature will repair the injuries of the rebellion and restore the University to its former usefulness. The central location of this institution adapts it to the convenience of the interior. Reorganized on a broader basis and imbued with a progressive spirit, our State University will be capable of efficient service in the cause of education and freedom.

Active efforts are now making, with every probability of ultimate success, for the establishment of an Agricultural College in Missouri. The new institution will be an important addition to the educational facilities of the State. By teaching the economic processes of scientific husbandry, by determining the analysis and capacities of different soils, by explaining the philosophy of fertilization and the remedy for defects of essential elements, by exploring the cause and cure of vegetable diseases, by discovering the nature of injurious insects and the means of destroying them, by testing the adaptation of valuable foreign plants to our own lands, and by elevating the chief industry and reliance of the nation to the dignity of a science, an Agricultural College would actively promote the material and mental development of the State.

The public school law of Missouri is liberal and equitable. It imposes upon the people of the State the duty of maintaining free schools. It provides for the education of all classes, without distinction of color. This law fully accords with the spirit of the age. Its provisions embody the soundest philosophy and the finest humanity of civil ethics.

Missouri encourages immigrants by a just and generous care for the education of their children. Immigrants will find here not only rare opportunities for material success, but excellent facilities for the cultivation of those spiritual forces which determine the destinies of men and the greatness of nations.

SPECIAL INDUCEMENTS AND FACILITIES FOR IMMIGRATION TO MISSOURI.

The provisions of the new Constitution of Missouri are highly favorable to immigrants. By the liberal terms of this Charter "Every white male citizen of the United States, and every white male person of foreign birth who may have declared his intention to become a citizen of the United States, according to law, not less than one year nor more than five years before he offers to vote, who is over the age of twentyone years, who is not disqualified by or under any of the provisions of this Constitution, and who shall have complied with its requirements, and have resided in the State one year next preceding any election, or next preceding his registration as a voter, and during the last sixty days of that period shall have resided in the county, city or town where he offers to vote, or seeks registration as a voter, shall be entitled to a vote at such elections for all officers, State, county or municipal, made elective by the people."

There are hundreds of thousands of acres of valuable land in this State subject to entry under the homestead law. The conditions

of this law are generous: "Any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his intentions to become such, as required by the naturalization laws of the United States, and who has never borne arms against the United States Government, or given aid and comfort to its enemies shall, from and after the 1st of January, 1863, be entitled to enter one quarter section or less quantity of unappropriated public lands, upon which said person may have filed a pre-emption claim, or which may at the time the application is made be subject to pre-emption, at $1.25 or less per acre; or 80 acres or less of such unappropriated lands at $2.50 per acre, to be located in a body, in conformity to the legal subdivisions of the public lands, and after the same shall have been surveyed: Provided, That any person owning and residing on land may, under provisions of this act, enter other land lying contiguous to his or her said land, which shall not, with the land so already owned or occupied, exceed in the aggregate one hundred and sixty acres."

The cost of entry at the land office is $14. After a residence of five years upon the land and the additional payment of $4, the title is complete, and a patent, vesting in the occupant the fee simple of the property, is issued. The humblest manual laborer can, by the earnings of a single month, purchase a farm of a hundred and sixty acres. By the liberality of our beneficent Government, the poor man can buy a homestead at less than twelve cents an acre.

Any public lands in Missouri, contemplated by the terms of the act, can be entered under the homestead law. The Government accepts in payment for public lands cash, land warrants and agricultural scrip. By act of Congress passed July 2, 1862, "this scrip, when duly assigned and attested by two witnesses, under such authority of the said State as the act of the Legislature thereof may designate, may be surrendered at any land office in satisfaction of a location of "one quarter of a section," or for any quantity in one legal subdivision less than one quarter section, where such location is taken in full for one quarter section—the location to be restricted to vacant public lands subject to entry at private sale at $1.25 per acre, mineral lands excluded, and whilst the aggregate location of all the claims under the said act may be taken in any of the territories without limitation as to the quantity located in any one of them, yet, in virtue of express limitation in the statute, not more than 1,000,000 acres of the total aggregate scrip-issue under said act can be located within the limits of any of the States." Agricultural scrip is now very cheap. It can be bought at sixty cents an acre; in other words, 160 acres of land, which the Government values at $200, can be purchased by means of this scrip for $96. But one difficulty attends the location of land with College scrip. Under a 160 acre land warrant, the sole requision is that the forty acre subdivisions shall lie in contiguous tracts. But a location with scrip demands that the land shall constitute a "quarter section" in the technical sense of the law. Divide a "section" into four equilateral parts—160 acres, if entered with scrip, must comprise one of

these squares. No other form will satisfy the requirements of the law.

There are now three land districts in Missouri. A new division has recently been made.

The Ironton district lies east of range 11 west, and south of township 38. The recording office is at Ironton.

The Springfield district comprises that portion of the State which is situated west of range 10 west, and south of township 35. The registry is at Springfield.

The Boonville district embraces all the rest of the State. The office of entry is located at Boonville.

Letters of inquiry should be addressed to the "Register of Public Lands" in that district where the immigrant proposes to settle. Gratuitous information relative to the character and adaptations of lands in their several departments is promptly furnished by the land officers.

The Graduation Act was repealed in 1862.

The public lands are now in large demand. Thousands of immigrants are now coming to Missouri.

But the danger of exhausting our supply of lands is not imminent. Official returns, just received from the registries, show that there are now in the

Boonville District—790,000 acres of unentered public lands.
Ironton " 1,000,000 " "
Springfield " 2,000,000 " "

As in each of these cases the lowest estimate of the registers has been given, it is probable that there are now in this State more than 4,000,000 acres of land still subject to entry.

The effect of freedom upon the material interests of Missouri is most palpable. When it is remembered that the ordinance of emancipation was passed January 11, 1865, the following figures, recently derived from official sources, are eminently instructive:

The entries in the Ironton District were in 1863..... 655 acres.
" " " 1864..... 7,395 "
" " " 1865.....21,709 "
" " " 1866.....60,131 "

From 1860 to 1866 inclusive, 17,375 acres were entered under the Pre-emption Act; and, in the years 1864, '65, and '66, 71,542 acres were registered under the Homestead Law.

The statistics of the Boonville office are a still more signal illustration of the influence of universal liberty.

For the year and three quarters preceding the passage of the Ordinance of Emancipation, the entries at the Boonville office were 38,496 acres—for the same period subsequent to the passage of that act, the entries were 607,145 acres. Of this vast quantity, 402,392 acres were entered during the last year, prior to the first of October.

During the rebellion, the disturbed condition of the State greatly diminished the number of entries. Yet, after making every

just allowance for the decrease due to civil disorder, our comparison still signally vindicates the superior prosperity of freedom.

But even these facts do not fully indicate the extent of our immigration. Thousands of immigrants have bought improved farms, but of course the land office keeps no record of such transfers of property. The effect of this large accession to our population has been to raise the price of improved lands. Though our cultivated farms can still be purchased at very low rates, yet Eastern men must no longer indulge the hope of buying our best lands at the prices which prevailed before the disenthralment of the State. Nor must they expect to find amid the rude conditions of frontier life the social advantages of older communities. A recollection of this obvious fact will prevent disappointment. The immigrant will find here an inexhaustible richness of soil and mine. A wild, exuberant, fruitful nature lies before him. But his own energy must develope its resources, and his own art fashion abundant materials into a beautiful home. Nature furnishes the facilities, but man must use them.

The intelligent forecast of our railroad and steamboat companies leads them to encourage immigration by special favors. They often give to destitute immigrants free or reduced transportation. Their policy is sagacious. The generosity which immediately relieves the beneficiary will eventually enrich the benefactor.

"The Board of Immigration of the State of Missouri" was organized under an act of the Legislature, approved Feb. 16, 1865. The following sections, copied from the amended act, express the constitution, objects and resources of the Board.

"*Be it enacted by the General Assembly of the State of Missouri as follows:*

"SECTION 1. There shall be a Board of Immigration, which shall be composed of five members, three of which are to be appointed by the Governor.

"SEC. 2. The Governor and Secretary of State shall be ex-officio members of this board; and it shall be its duty to do all and everything which may and will advance and encourage immigration to this State, either from the eastern States of the United States or from the eastern hemisphere.

"SEC. 3. The members of this board shall, if they deem it advisable and proper for the encouragement of immigration, publish or cause to be published pamphlets, essays and articles treating on and describing, in a true light, the developed and undeveloped agricultural and mineral resources of the State of Missouri, our facilities for navigation, railroad connections, and our wide-spread commerce, and to distribute them in such localities wherever, in their opinion, they may be useful, beneficial and of good for the promotion of immigration to our State.

"SEC. 4. They also shall have power, whenever deemed expedient by them, to appoint an agent or agents, either for the eastern States of the United States or for Europe, for the purpose of aiding and advising immigration; and such agent or agents shall act solely

under the instruction of the Board of Immigration, who shall also fix and allow their compensation for their services, to be paid out of the fund created as hereinafter provided.

"SEC. 8. The sum of two thousand dollars, annually, is hereby appropriated out of any money in the Treasury of the State not otherwise appropriated, for the use of the Board of Immigration, to be expended by them as they think best and expedient for the interest of immigration to the State of Missouri, which shall be in full of all other appropriations.

"SEC. 9. The Board of Immigration is furthermore authorized and shall have power to open books and invite and solicit contributions and endowments of money from corporations, manufacturers, merchants and all persons who are immediately and directly benefited by the flow of immigration; which money so contributed shall also be under the control of and expended by the Board for the intents and purposes in the preceding section stated.

"SEC. 12. It shall be the duty of said Board to co-operate with the Bureau of Immigration at Washington City, and to make regular reports of their labors and proceedings to the General Assembly of the State, accompanied by such references, suggestions and statistics as may furnish good and reliable data and a proper basis for future legislation on the subject of immigration."

The total receipts of the Board during 1865 and '66 were about $10,500. A rigid economy has presided over all disbursements. But the unsufficiency of the present appropriation greatly restricts the usefulness of the Board. A legislative liberality, proportioned to the importance of the work, would enable the officers to enlarge the operations and secure the beneficial objects of the organization. The results already attained, in despite of limited means, evince the wisdom of the Legislature in creating the Board, and justify sanguine expectations of future utility.

It is believed that 2000 families have been induced to settle in Missouri through the agency of this association. Thousands of letters of inquiry have been answered, and a large amount of valuable information upon the resources of the State has been circulated. The first report of the Secretary is full of useful facts. The officers of the Missouri State Board of Immigration are:

GOV. THOS. C. FLETCHER, President, Jefferson City, Mo.
F. RODMAN, Secy. of State, Vice Pres., " " "
HON. ISIDOR BUSH, Secretary, 322 Chestnut St., St. Louis.
HON. A. VALLE, Treasurer, " " " "
HON. F. MUENCH, German Correspondent, Augusta, Mo.
REV. MARTIN W. WILLIS, Gen. Agent, 309 Locust st., St. Louis.
OFFICE OF STATE BOARD OF IMMIGRATION " " " "

The Secretary and Agent will cheerfully respond to all inquiries concerning Missouri. By the diffusion of free information and by the encouragement of personal assistance, the Board is actively fulfilling the object of its organization.

The name of the "German Emigrant Aid Society" imports the nature of its services. The capital of this organization is now

about $5,000, and the prospect of an early enlargement is hopeful. The efficiency of the society is greater by far than its means. Its benevolent activity is restricted to the relief of indigent Germans. The following statement exhibits some of the labors of this society during the past year.

Number of families forwarded to their destination	7
" " patients treated at the hospital	15
" " persons provided with board	70
" " " aided with money	78
" " " supplied with work	146
" " days' board furnished	181
Amount of pecuniary assistance	$365
" recovered for lost baggage	$524
" dispatched to immigrants	$1,289

But perhaps the larger part of the labor of this society escapes the form of tabular expression. It has directed immigrants to those portions of the State best adapted to the exercise of their several vocations, recommended the cheapest lines of travel, negotiated loans, recovered delayed baggage, procured legal advice and compelled the fulfilment of contracts for transportation. Its services in cases of sickness, destitution and helplessness have been unremitting and effective.

"The Mullanphy Emigrant Relief Fund" is under the management of a Board of Commissioners composed of the Mayor of St. Louis and a member—elected by the Common Council—from each of the ten wards of the city. The amount of this fund is over $500,000. The property is mostly unproductive real estate. At first, the title of the lands was contested, and the Board was seriously embarrassed by suits at law. After the adjustment of the rights of possession, the improvements, so long deferred by litigation, were begun. In 1864 and '65, the Board spent $40,000 in the erection of buildings. During the present year, the rent of fifteen new houses will still further enlarge the revenue of the fund. The net income from the estate is now $10,000 a year. It is the present policy of the Board to expend almost all of this sum in the improvement of the property.

By this process the quickest increase of capital and the amplest means of future usefulness will be secured. In 1865, the almoner of the board dispensed $1,000 for the relief and assistance of foreign immigrants.

The Commissioners are now erecting, at a cost of $25,000, a large building at the corner of Sixth and Gratiot streets. The structure will be 40 feet front, 120 feet deep, and 3 stories high. Its accommodations will be spacious. It will contain 75 berths, and couches could be spread, upon an emergency, in the open spaces. It will comprise rooms for baggage, bathing, and cooking. An elevator and a safe will complete the conveniences of the establishment. The Board think that the accommodations of this building will be sufficiently large to meet the present wants of all that class of immigrants contemplated in the bequest. The friendly and judi-

cious hospitalities of this institution will not only relieve destitution, but also promote immigration.

The following extract from the organic ordinance of the Common Council fully explains the uses of the Mullanphy fund:

"First. In order that relief from said fund shall be furnished to all poor immigrants and travelers coming to St. Louis, on their way *bona fide* to settle in the West, a building shall be erected upon a lot at some convenient point, a part of which shall be fitted up for lodging and boarding rooms, with a hall for use in the day; and on the lower floor, let there be kept the office of the Secretary of the Board and the business room, to which immigrants and travelers may first be taken. This plan is subject to such modifications by the Board of Commissioners as may be found convenient. This house shall have ample room for the deposit of baggage of the immigrants, and for other necessary conveniences. An officer shall be appointed to be the Secretary and Business Agent of the Board. He shall collect all information needful for the benefit of immigrants and travelers, relating to climate, soil, character of land, &c., that will enable immigrants and travelers to learn, as far as practicable, all facts relating to localities by which they may determine the best place for them to go, and he shall, by all means in his power, and in the manner required of him by the Board, keep up correct information upon all such subjects, and he shall use his best endeavors to procure and keep in his office all information needed for the purposes above named, and shall procure and keep registered, as far as practicable, a list of lands in different localities which may be offered to settlers, with a note of all facts relating thereto.

Second. There shall be appointed an Assistant Secretary by the Board. He shall visit all boats and trains of cars arriving with immigrants and travelers, make himself known to them and give them such information on the spot as they should have to enable them to pass safely through the city, and, where they need assistance, he shall, under regulations to be adopted by the Board, take them to the building with their baggage when necessary, and see that they are safely placed within the charge of agents of the house. There they shall by him be furnished with all necessary information as to boats, routes and lands, so as to be thoroughly informed upon all points useful to them. Where immigrants are poor and needy, they shall be relieved under regulations to be prescribed by the Board. And it shall be the especial duty of this officer to protect immigrants and travelers from impositions and false information attempted by runners, and upon their departure this officer shall procure their tickets and superintend their shipment."

After the full improvement of the Mullanphy estate, the princely revenue accruing from the rents will be exclusively donated to the assistance of needy immigrants. Many a friendless passenger will yet bless the memory of him who organized his generosity into a perpetual beneficence.

Even a general description of the Counties of Missouri would far exceed the prescribed limits of this pamphlet. Emigrants desiring such fullness of practical detail must procure the Geological

Reports of the State, or wait t' they reach St. Louis, where it will be easy to obtain all the inform..ion they need. Immigrants who have not already decided upon a location should buy through tickets to the farthest points which they purpose to explore. For, even in case they should not go quite to the proposed destination, the local rates are so high that it would still be a matter of economy to purchase the through ticket.

Parties who propose to settle in the West would do well to form colonies. Then they could at once command the advantages of organized communities. They could bear with them their household gods, and rear in their honor sacred and secular temples —the church and the school house. The institutions transplanted from a less genial clime might flourish in our fertile soil with a richer growth and mature the fruitage of a still fairer civilization.

Our limitless expanse of unsettled lands invites the occupancy of colonists. The population of Missouri is not proportioned to the magnitude of the State. In 1860, our census was 1,182,000. If this State was as densely peopled as England, Missouri would contain a population of 25,000,000. By the extent and diversity of its resources, Missouri is better able to support this vast number in competency and independence than England is to maintain its present population.

Missouri needs able-bodied men. There is opulence in muscle. The physical energies of a healthful man in the prime of life are appraised at $1,000. Every robust immigrant, however unblessed with the goods of fortune, enriches the State with his wealth of sinew. Our broad acres need the labors of myriads of workmen.

The suppression of the rebellion is an augury of peaceful thrift. The restoration of the Union is a guarantee of National greatness. The American people are now entering upon a career of material prosperity to which the annals of political economy present no parallel. It requires no gift of prophecy to fortell the thronging millions who will, within a score of years, people this vast valley. A simple calculation based upon the tables of the census is all the inspiration which the prediction demands. The tidal waves of population which follow the star of empire will not pause in their westward flow, till they break against the rocky barriers of the Sierra Nevada. The rich mineral deposits of the Rocky Mountains will lead to an early settlement of the surrounding country. Soon tens of millions will people the vast domain which lies on the "sunset side of the Father of Waters." Cottages, hamlets, cities will spring up. Every resource of nature will be explored. Wealth will be developed. The industrial products of the country will reach aggregates which will startle the statistician. The Mississippi valley, whose annual yield of cereals now exceeds 1,000,000,000 bushels, will become the granary of the world. Metallurgy will utilize in countless forms and uses the rich products of our mines. Our manufactories will create capital, economize material, naturalize gold, nationalize comfort, vindicate our industrial independence, and satisfy our American wants with domestic productions. The exchange of commodities, in obedience to the laws of demand and sup-

ply will freight our railroads with ton merchandize of a vast internal trade. Our vessels, laden with richer cargoes than the fabled freights of classic argosies, navigating every stream and traversing every main, will expand our inland and international commerce into still grander proportions. The restless energies of the Anglo-American character will achieve a greatness that will surpass precedent, and justify to mankind the soundness of our faith in the incentives, stability and excellence of republican institutions.

In the accomplishment of this great national destiny, Missouri will do her full part. Emerging from her fierce conflict with treason, triumphant yet sorely wounded, she will not now, with her brow radiant with the new luster of freedom and her loins girt with the untarnished cincture of loyalty, yield to any of her sister States in the generous rivalries of peace. But her present industrial force is not equal to the development of her resources. She urgently solicits assistance. She seeks the co-operation of the self-reliant laborers of New England, and of the two hundred thousand sturdy immigrants who are annually landing at the port of New York. She promises a cordial welcome and liberal compensation to the higher classes of trained and skilful workmen. She especially needs educated labor. She appeals to an intelligent self-interest, and invites the potters, goldsmiths, watchmakers, vinedressers, silk-weavers, glassmakers and metallurgists of Europe to come to her heritage and better their condition.

Free Missouri, instinct with the spirit of progress and loyal to the genius of republican liberty will welcome the immigrant to the enjoyment of her boundless advantages, and enrich his industry with generous recompense. Millions may accept the proffered hospitalities without exhausting the ample board which Missouri spreads upon her table lands.

3.

FIRST ANNUAL REPORT

OF THE

COMMISSIONER OF STATISTICS,

TO THE

GENERAL ASSEMBLY OF THE STATE OF MISSOURI,

FOR THE YEAR 1866.

Two thousand three hundred copies ordered printed, three hundred of which are to be for the use of the Commissioner.

February 20th, 1867. D. P. DYER, *Secretary Senate.*

Laid on the table and three thousand copies ordered printed for the use of the House.

February 21st, 1867. N. T. DOANE, *Chief Clerk H. R.*

JEFFERSON CITY:

EMORY S. FOSTER, PUBLIC PRINTER.

1867.

OFFICE OF THE COMMISSIONER OF STATISTICS,
No 9 South Fifth street,
ST. LOUIS, *February 18th*, 1867.

To the Speaker of the House of Representatives:

SIR—In obedience to the requirements of section 2 of "An act in relation to Statistics," approved March 20th, 1866, I herewith submit to the House of Representatives, through you, a report of the result of my labors.

Very respectfully,

L. D. MORSE,
Commissioner of Statistics.

PREFACE.

In conformity with the Act, approved March 20, 1866, appointing a Commissioner of Statistics, I herewith present my first Annual Report.

In making up this report, I have met with the usual difficulties incident to a new enterprise. In obtaining information from the different counties, it was difficult to decide how many and what items to ask for, because if I asked for too much I got nothing. Since nobody was paid, the duty was shirked from one to another and ended by not being performed at all. I am free to confess that the result shows that I made this mistake. I prepared large blanks, embracing every item of Agricultural, Manufacturing, and Social Statistics, and if these had been properly filled out and returned to this office I could have made a more complete report than has ever been published in this country. But this task involved so much labor that only a few assessors have complied with my request or the law. Another difficulty in rendering these returns available is, that the assessors have until the first of January to complete their books, and then very little time is left to make the proper abstracts before my report is required to be presented to the Legislature. It would be well to devise some means of obviating this difficulty. As the case stands at present, I shall be obliged to embrace fewer items in my report, making it less complete and satisfactory, or some remuneration must be made to the assessors for their extra labor. The assessors of Cooper and Platte counties deserve especial commendation for their very complete reports, and any one at all acquainted with such matters will see that it is asking too much to require them to do this gratuitously. If this system of minute and complete reports could be carried out, it would give a better idea of Missouri and its resources than any essay upon the subject could possibly do. I would therefore recommend that the Legislature provide some means by which those officers who make reports as required by law and the Commissioner of Statistics shall receive some pay for their work.

The Statistical Report made in the Assessor's office of St. Louis is especially valuable. Very few, if any, statistical reports in the Union can compare with it in extent, minuteness, or accuracy. It required the constant labor of one clerk for many weeks, and it certainly deserves to be paid for.

Many of our records are very defective and inaccurate. Something should be done to render them more complete and correct. On comparing the records of marriages in the Recorder's office with the returns to the Assessor of St. Louis county, there is found a difference of 1,200. Of the births, not more

than one-half are recorded, and in some counties scarcely at all. The records of naturalization are scattered through the different courts, and it is almost impossible to get them returned to this office. The records of mortality are exceedingly imperfect. In the city of St. Louis the records of the Board of Health and those of the cemeteries do not agree.

Concerning Manufactures, it is also very difficult to obtain information. When possible, I have made use of the returns of the Collector of Internal Revenue. But sometimes the tax is levied *ad valorem*, and then the *quantities* cannot be calculated from this source, because the price is not given.

To obtain true values, it is necessary to add about one-third to the assessed value, because it is well known that the real value of an article is seldom returned when a tax is to be levied upon it.

The experience gained in making up this first report will enable all parties concerned to improve in succeeding ones.

Senator C. H Howland, the author of the Act in relation to Statistics, is entitled to credit for inaugurating this important movement. When the defects of the law are remedied, as they should be, by the Legislature, it cannot but prove, in time, of the utmost importance to the State.

For much of the information contained, and the work of arranging and condensing the matter of this report, I am indebted to the labor and skill of Prof. Spencer Smith.

L. D. MORSE,
Commissioner of Statistics.

INTRODUCTORY.

IMPORTANCE OF STATISTICS.

The Science of Statistics is of comparatively modern origin. Archenball, in Prussia, was the first who gave the name and scientific form to this branch of knowledge. His compend was originally published in 1749, and went through seven editions. His most distinguished pupil, Schlossa, carried out his views still further in his "Theory of Statistics," printed at Gottingen in 1804. Sweden was the first European government that paid any attention to the collection of Statistics in a systematic manner. The attention of other governments was soon attracted by the important results, and many of them soon entered into a similar arrangement. There is now a Statistical Department, or what is termed a "Bureau," in connection with the governments of Prussia, Austria, Bavaria, Wurtemburg, Naples, Sardinia, and many other European countries.

The French Society of Universal Statistics was founded in 1829, under the protection of the King. The subjects about which the Society is employed are arranged in three classes: *First*—PHYSICAL AND DESCRIPTIVE STATISTICS, embracing Topography, Hydrography, Meteorology, Geology, Mineralogy, Population, Man considered Physically, Hygiene, and the Sanitary State. *Second*—POSITIVE AND APPLIED STATISTICS, embracing Vegetable and Animal Productions, Agriculture, Industry, Commerce, Navigation, State of the Sciences, General Instruction, Literature, Languages, and the Fine Arts. *Third*—MORAL AND PHYSICAL STATISTICS, including the Forms of Religious Worship, Legislative and Judicial Power, Public Administration, Finance, the Military, Marine, and Diplomacy.

"The Science of Statistics," says De Bow, in 1853, "may be considered as almost new in our country; it has, nevertheless, of late excited much attention, and we see from the reports of Congress and of State, down to the newspaper press, the strongest evidence of its favor and progress. Such a science is worthy of all attention, and deserves to be introduced into our schools and colleges, as it is into the merchant's counting-house and the Legislative halls, as an independent and most important branch of sound, practical education."

In the Patent Office Reports on Agriculture, as early as the years 1848 and 1849, the importance of organizing Bureaus of Statistics, or of adopting some efficient means for the collection of complete statistics of the industrial resources of the country, was ably urged. In the volume for 1849 the Commissioner says: "In the pursuit of its Statistical investigations, this office has keenly felt the want of means for obtaining accurate and reliable information concerning the great industrial interests of the country. No provision has been made by the General Government for obtaining such information, except in relation to our foreign commerce, and but very few of the States have adopted measures for obtaining authentic information in relation to these industrial interests. Massachusetts and Louisiana are in advance of most other States in their legislation upon these subjects. In the former State very full returns are obtained in short periods of a few years, if not annually, of her industry and resources; and in the latter a Bureau of Statistics has been established. The encouragement of collectors of Statistics is one of

the avowed means by which the Smithsonian Institute proposes to diffuse knowledge among men. A most interesting view of the vast resources of this great republic would be annually exhibited if all the States would follow the example of Louisiana and Massachusetts. The statesman and legislator, to whom the people commit the destinies of their common country, would then have at their hands ample material to aid them in the intelligent discharge of their momentous and responsible duties, without which they are like blind men, feeling their way in the dark."

Tables of statistics are to the State what his account-books are to the merchant. What should we think of the prudence of that man who should continue to do business year after year without keeping any record of his affairs? How else can he tell what branch of his trade is most successful, or what prices he paid for various articles at different times, and a thousand other things which a good business man keeps properly arranged in his counting-room, where he can refer to them at any time? And should the affairs of the State be conducted more loosely than those of an individual? An individual may remember some of his transactions; any defect in his books may frequently be remedied by calling upon his recollection. Not so with State affairs: here is a large number of men assembled to transact business of which they can know nothing except what is contained in the records; and how can a legislator enter upon his duties without the documents before him? How frequently are committees at fault for want of the proper information which a compendium of statistics would furnish. As a consequence more time is wasted in discussing "opinions" (which are not seldom the offspring of the author's imagination) than would pay for certain and thorough knowledge. A collection of facts would be found a sure test of the correctness and practicability of various theories of political science, especially those in relation to the production of wealth and its distribution among certain classes, the benefits arising from laws regulating commerce, the results of granting subsidies, giving protection to certain manufactures, etc. At present the statistics on these and kindred subjects are the veriest webs of entertaining romance.

A complete statistical report on an extensive scale enables the legislator to work understandingly. If he wants to know the relative value of agricultural products, and the enhanced value by manufacturing, or the comparative results of commercial enterprises, a series of Statistical tables, well collated and arranged, will give him the information at a glance.

Tables of statistics are too often regarded as labyrinths of figures, not intended for every-day use, and only valuable to some curiosity hunter or musty antiquarian. But this is a mistake; they give their information clearly and sharply, undisguised by words. It is true that columns of figures are not as attractive to the *young* as French novels; but, to the searcher after truth, they are quite as interesting. Statistics, like everything else worth knowing, are better appreciated the more we study them.

They are comparatively a novelty among our people; and to most persons the Census is a work of wonder, and always supposed to be limited to the mere enumeration of inhabitants. Now, when a man who labors under this mistake has a book presented to him from Government, which tells him all about the relative importance of every branch of agriculture, the value of the different departments of commercial enterprise, and the results of the various manufacturing schemes, he begins to think, to inquire; and, as fact after fact is brought to his view, his mind is awakened, and the long columns of figures acquire new attractions, and the more they are studied the more interesting they become.

Individuals engaged in extensive enterprises may derive invaluable aid from collections of statistics. The data thus obtained are essential to the employment of capital and industry. To illustrate by example: Suppose one of our large grain

merchants wants to know what the wheat market is likely to be for the coming year. With the Statistical Reports of the surrounding States at hand, he has only to turn to these, and, seeing the amount raised, compare it with former years; this will give him a good basis for future operations. Already some of our large manufacturers' associations have begun to act upon this principle. The iron manufacturers have taken the initiative, and employed competent persons to visit every furnace in the United States and collect from the books and ledgers the important facts there recorded. The national woolen manufacturers are doing the same thing in relation to their pursuits. Those who are engaged in other departments of productive industry could do the same with advantage.

Agriculturists are proverbially careless and inaccurate in the accounts of their crops and the cost of producing them. Not one in a hundred can do any better than guess at the amount of any of his crops or the number of acres he has in cultivation. Hundreds of farmers can be found in this State who have not a single memorandum of their whole farming operations. This makes it more difficult to obtain statistics upon agricultural subjects than upon any other department of industry. This loose way of doing business will soon be remedied if certain reports are required of them every year and the assessors are strict in seeing that they approach to some degree of accuracy in their accounts. Thus, indirectly, they will acquire the habit of taking notes of their farming operations; and when the habit is established, the task becomes easier the oftener it is accomplished. Manufacturers also come very far short of reliable data; yet the success of their business depends in a good degree upon details, and they ought to be gathered together.

In those countries where complete and detailed statistics have been collected and arranged, taxation and the benefits of government are divided more equitably, because the rights of every class are better understood, and respected accordingly. The confidence of the people in the management of public affairs is hightened by having the facts within reach upon which the policy of the administration is based.

GEOGRAPHICAL POSITION.

Missouri is situated in the center of the United States. The rivers which flow through it and along its borders extend east and west from the Alleghany to the Rocky Mountains, north and south from the British dominions to the Gulf of Mexico. It is in the center of the great Mississippi Valley. Geographically, it lies between the parallels of 36° 30′ and 40° north latitude, and between the meridians of 12° and 17° 30′ west from Washington. More specifically, its eastern boundary is the Mississippi river, beginning at the parallel of 36° north, following the deepest channel to the mouth of the Des Moines; thence along this river to its rapids, in latitude 40° 30′ north; then due west to the Missouri; thence along the Missouri to the mouth of the Kansas; thence due south to the parallel of 36° 30′; then east along this parallel to the St. Francis river; down this river to its mouth; then due east along the parallel of 36° to the Mississippi river and point of beginning.

The statistical results of these elements may be expressed in the following table:

Total extent of surface, - - - - - - - -	67,380 square miles.
Land in acres, - - - - - - - - - - - -	43,123,200.
Number of acres comprising the hilly and mineral region south of the Missouri, - - - - - - - - - - -	17,000,000.

FACE OF THE COUNTRY.

Missouri comprises within its limits every variety of surface, except the extreme mountainous. Extending through the State from the Missouri river to the southwestern corner is what is called the Ozark Mountains, though they are rather hills

than mountains. They occupy a large portion of the interior of the State south of the Missouri river. With a few exceptional small prairies, like oases, the land is of very little value for grain crops. It is believed by many that it will prove exceedingly well adapted to the cultivation of the grape, but this remains to be demonstrated. East of this range the rough country continues nearly to the Mississippi river. The south-east corner is more or less swampy. On the west the land gradually improves till you reach the counties bordering on Kansas, when it spreads out into beautiful rolling prairies. North of the Missouri the general character of the surface is prairie—sometimes rolling, but oftener flat.

So far as county reports have been received, the surface of each county is given in detail in "The Condition of Agriculture"—First Series.

GOVERNMENT, FINANCES, ETC.

The State of Missouri secures the right of voting to every free white male citizen twenty-one years of age, who has resided in the State one year and in the county three months, except such as may be disfranchised for disloyalty or other high crime. There is a general registry law, and every one entitled to a vote must have his name registered in the proper office.

The general election is held on the first Tuesday after the first Monday in November.

The General Assembly is composed of a Senate of thirty-four members, chosen by districts for four years, one-half biennially, and a House of Representatives of one hundred and forty members, chosen by representative districts for two years. The Legislature meets biennially (even years) on the first Wednesday in January. The Governor is elected for four years. The Lieutenant-Governor (who is *ex-officio* President of the Senate and the principal administrative officer), the Secretary of State, the Auditor, the State Treasurer, and the Register of Lands, are elected for the same time.

The Judiciary consists of a Supreme District Court, Circuit Court, and County Court. The Judges of the Supreme Court, three in number, are elected for the term of six years, and hold two sessions annually at Jefferson City, St. Louis, and St. Joseph. Its jurisdiction is appellate only. For circuit purposes the State is divided into eighteen circuits, in each of which a judge is elected for six years. A court is held twice a year in each county. St. Louis has special, civil, and criminal courts. A county court sits in each county and is composed of three justices, elected for four years.

METEOROLOGY AND CLIMATOLOGY.

The importance of a correct and certain knowledge of the climate of a country, deduced from a long series of scientific observations, has not heretofore been properly appreciated. Its real value cannot be estimated. The keeping of meteorological records, in almost all cases, has been a labor of love. None but the most indefatigable men of science have been willing to assume the amount of labor requisite to examine the instruments and make the records of the climate three times a day for twenty years without any other compensation but the satisfaction which science always accords to its votaries. A series of well-recorded observations for the last twenty years would be of great value, especially now, when Missouri, having thrown off its incubus, is attracting an intelligent and enterprising population from all parts of the world.

The wool-grower of New England would like to know if the climate is too warm for the growth of his favorite staple. The vine-grower from northern Germany to southern Italy, having ascertained that the face of the country and the quality of the

soil is similar to that of his native hills, immediately asks of the climate—its temperature, humidity, etc. The returns from a few stations properly located would give a general idea of our climate, and answer all these questions satisfactorily, and the emigrant and the nation be benefited thereby. The State would protect its own interests and attract wealth and industry to its borders. Until we are able to give trustworthy information regarding our State, the emigrant from other parts of the country or from Europe must trust to "travelers' tales" for information. Agents of Land Companies are sent out, not for the inducements they can offer, but for their qualities as talkers. For example—several years ago an agent went to Switzerland to obtain settlers for Lord Selkirk's colony, of which Pembina is the principal town. By false representations a ship load was obtained, and after a long and stormy passage they found themselves landed on the *delightful* shores of Hudson's Bay, in the depth of an Arctic winter, and there left to find their way, as best they might, to their "promised land."

In a few years from this time, if the science of climatology continues to attract the attention which it is now receiving, and our legislators become awake to its importance, such impositions cannot be practiced. We shall then be able to present facts—the plain unvarnished truth. Emigrants can then tell to what climate they are going, and their prospects when they arrive.

How often do we hear people exclaim, "This is the most uncommon weather known;" or, "this is the hottest (or coldest) day I ever experienced;" or, "such storms of rain (or snow) never happened within the memory of the 'oldest inhabitant;'" (said oldest inhabitant's memory being usually as treacherous as their own.) Frequently, too, we hear it confidently asserted by these "oldest inhabitants" that the climate has wonderfully changed since they were children; that we have no longer the beautiful mild winters, the pleasant summers and the delightful autumns, which are associated with the memories of their youth. Perhaps a series of correct meteorological tables would materially interfere with many of these fond recollections.

Though no calculations can be made upon the weather, whether it will rain or snow, be fair or cloudy, for any particular day, yet such results may be deduced from records continued through a series of years that we can determine the general climate of a country and its adaptability to certain purposes. For example, if the temperature is below a given standard we know that certain crops will not generally ripen, though they may in exceptional years. If the humidity is too great, or too little, certain crops and manufactures thrive or suffer accordingly.

Being able to make a correct exhibit of our climate, persons from abroad who propose emigrating to this State, either for farming or manufacturing, will be guided in their purposes by what they know of its adaptability. We often hear it asserted that certain localities are more subject to drouths than others, that storms follow the course of certain streams, and many other observations upon the climate and its changes which have no foundation in fact. For the benefit of all concerned, these questions ought to be settled mathematically. Nothing regarding the State is less understood than its climate. Every traveler is liable to exaggerate according as he finds it at the particular time of his visit. If he happens to meet with storms during the few days of his sojourn, the climate is reported accordingly; if a hail-storm happens, then it is no use to undertake to raise grapes because they will all be destroyed by hail, etc., etc. If the question is asked, "Can we expect a sufficient fall of rain one year with another to insure average crops?" not one man in a thousand can answer this and similar important questions, nor are the requisite data to be found except in rare instances.

The science of Climatology is awakening much interest in all parts of the world; the necessity for a more correct knowledge of the climate of the various countries of the globe is becoming more apparent as men progress in the art of conducting their

business on scientific and certain principles. Reform in this respect is rapidly progressing; men are tired of trusting to the opinions (guesses) of travelers.

We are treating this subject in a purely practical manner; its value among scientific men has long been acknowledged and appreciated, and we hope to arouse some nterest in it amongthe people at lar ge.

The United States Government has required meteorological observations to be made at all military stations, and the Smithsonian Institute at one time promised to have regular records kept throughout the country, but thus far they seem rather to have appropriated those made without any of their help. But we want more than this; we want them in a greater number of places throughout the State. To satisfy this want we must establish a regular system that will continue through many years; and these reports, so arranged and published as to be available to every citizen, would be of the greatest value. It would be worth much more than any expense that is likely to be incurred, to be able to answer the question how far north is our climate suitable to the growth of the grape, or how far south may certain fruits be cultivated with success, especially those which are natives of colder climates. At present we are indebted for our meteorological records to a few scientific men, who are willing to devote the necessary time and expense merely for their own satisfaction and the general benefit of science. Of course only a few such men can be found, and they are so widely separated that we can only approximate to correct results regarding the general climate of the State. It is very desirable that we should know more about the climate of the western border of the State, because there is a prejudice (whether true or not) that this part of our country is more subject to drouths than the eastern district along the Missis sippi river.

The only observations that we can obtain, going through a length of time sufficient to establish an average, are those of Dr. Engelmann, of St. Louis. These are all that could be desired. If we had a few such records from the more remote parts of the State we should be able to make an exhibit of our climate at once clear and comprehensive.

Those who propose to keep a meteorological record would do well to procure a copy of the Instructions of the Smithsonian Institute, and be guided by their forms; this will render their reports much more valuable because of their uniformity with those of other States. It is also desirable that observers should make copious notes which any unusual weather may have upon various crops; the appearance of vegetation; the time when many trees, especially the apple and peach, come into bloom; the earliest appearance of leaves on the forest trees; the commencement of the wheat and corn harvest; and every thing else that will conduce to a more thorough knowledge of our climate. Never fear recording too much, but let it be reliable. Facts are what we want. Meteorology is a science of the true "Grad-grind" school. It has no connection with poetry or romance. "Garden of the West," "Vine-clad hills," "Climate of Eden," and such like poetical phrases, may appear well in a newspaper paragraph or a land agent's advertisement, but better that the world have the *facts*, and then let them draw their own conclusions.

We see in some meteorological reports the amount of rain and melted snow put down as marking the humidity of a country; this is not correct. In one country much more rain may fall than in another, yet because it falls in much less time the climate cannot be considered so humid. Other circumstances also affect the humidity of a climate. Comparative humidity, one of the most important items in the climatology of a country, we are obliged to omit, because we have no returns except from St. Louis.

The following results, taken from Dr. Engelmann's observations during twenty-eight years, give the average amount of rain and *melted* snow in that time, and the number of hours it was in falling during each month:

	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
Aver'ge quantity in inches and hundredths of an inch for 28 years, - - - -	2.14	2.66	3.81	3.96	4.94	5.66	4.17	4.15	3.25	3.39	3 06	3.19	44.48	inches.
Hours in which it fell, - - - -	55	52	43	30	34	30	18	22	22	33	50	52	462	hours.

The isothermal lines (or lines of equal temperature) exhibit causes of the great difference in the growth of plants where there ought seemingly to be a uniformity, and show that the latitude of a place is no criterion of its climate. For example, starting from St. Louis, in latitude 38° 37′ 28″, the mean temperature of which is 53°, the isothermal line runs a little south of Indianapolis, north of Louisville, about equidistant between that city and Cincinnati; then southerly near Frankfort, Kentucky; then northerly to near Harper's Ferry, to the parallel of Philadelphia; then due east to the ocean. We meet with it again in the south of Ireland and England, north of France, thence to Venice, north of Constantinople, then almost parallel with the line of latitude across the continent of Asia. It will thus be seen that the State of Missouri enjoys the same climate as the most favored countries of Europe, and that while we can raise the finest crops of the cereals, with the fruits of colder climates, we ought also to raise the grape with the same certainty and the same immunity from frost as they who cultivate it along the Rhine and Danube. Perhaps in one particular our climate is less favorable than that of European countries. Our extremes are greater; they vary from 23° below zero, of Fahrenheit, to 104° above. The greatest extremes in the opening of spring have occurred in two successive years. 1842 the apple trees were in bloom on the 28th of March; in 1843, not till the 5th of May—a difference of thirty-eight days. The peach in 1842 was in bloom on the first of March; and in 1843 on the 28th of April—a difference of thirty-seven days. The wheat harvest in 1842 commenced June 10th; in 1843, July 10th. The present year may be taken as about an average. Peaches were in bloom April 15th; apples, April 20th; black locust in bloom, May 14th. These dates, it must be recollected, are for the vicinity of St. Louis.

The following "Floral Calendar," by Mr. G. C. Broadhead, who is located at Pleasant Hill, Cass county, gives the flowering time of several plants in that vicinity:

FLORAL CALENDAR.

BY G. C. BROADHEAD.

1864.

March 17—Pleasant, sunshiny.
" 29—Erythronium, Albidum, and two other small flowers, in bloom.
April 14—Claytonia Virginica, and Viola Cucullata, in bloom.
" 19—Whippoorwill appeared and sang.
" 21—Sisyrinchum Bermudianum, Viola Pubescens, and Isopyrum Biternatum and Plum.
" 25—Mertensia Virginica.
" 27—Astragalus Caryocarpus.
" 29—Oxalis Violacea, Dandelion, Phlox Divaricata, Ranunculus Repens.
May 2—Strawberry, Pear, Apple, and Cherry, in bloom.

May 6—Erythronium Albidum, ceased blooming.
" 7—In bloom, Baptisia Leucophæa, Phlox Divaricata, Polemonium Reptans, Astragalus, Redbud, Plum, Sisyrinchum Bermudiana, Hypoxis Erecta, Viola Delphinifolia, Viola Cucullata (blue and white), Yellow Violet, Verbena Aubletia, Claytonia Virginica, Dandelion, Ranunculus Repens. Grass looks green and pretty. A little rain during nearly every day for the past two weeks.
" 9, 10—Rainy.
" 11—Geranium Maculatum, May Apple, Buckeye.
" 12—Larkspur, Scilla Fraseri, Black Haw, Dodecatheon Dentatum, Bladder Nut.
" 15—Potentilla Canadensis, White Oxalis.
" 16—Astragalus Distortus, Verbena abounds.
" 17—Phlox Pilosa abounds on Prairies.
" 20—Shepherd's Purse has been in bloom some time. In bloom, Polytænia Nuttallii, Yellow Oxalis.
" 21—Yellow Locust.
" 23—Tradescantia Virginica.
" 26—Baptisia Alba, Physalis; Phlox abounds on prairies—varieties, scarlet, white and streaked.
June 1—Rosa Lucida, Prairie Larkspur, Galium, Buffalo Clover, Iris.

The tables of Dr. Engelmann are very full, and may be relied on as correct. Probably there are no more complete records in this country than his; and having been continued for so many years (thirty-two years), are invaluable.

In addition to the usual Meteorological tables, we are able to publish complete the rare and valuable tables of Dr. Wislizenus, on Atmospheric Electricity*. They give reliable information upon certain phenomena of our atmosphere which have been the subject of unlimited speculation and quackery. These tables are the only ones of the kind in the United States, and there are only two or three others in the world. Such tables involve an immense amount of labor; the observer must go six times a day to the highest room of his house to obtain a free circulation of air, and then manipulate his apparatus for the result and record it. These results must be digested and arranged to render them intelligible to the general reader.

* A complete account of the apparatus, etc., by which these tables are compiled, may be found in the "Transactions of the Academy of Science of St. Louis, 1865."

METEOROLOGY OF JANUARY, 1864.

By GEO. ENGELMANN, M.D., St. Louis.

	January, 1864.	Average for Jan'y.
Barometrical Pressure—		
Mean	29″.644	29″.616
Highest	30″.115	30″.400
Lowest	28″.966	28″.634
Temperature—		
Mean	28°.5	32°.7
Highest	72°.0	72°.0
Lowest	22°.5	22°.5
Evaporation	2°,6	2°.6
Relative Humidity	72.2	72.6
Rain and Snow—		
Quantity	2″.74	1″.91
Days on which it rained or snowed	4	8
Thunder-storms	2	0.7
Principal Winds	SE, SW, then W.	W, and SE.
Cloudiness	4.2	5.3
Fair days	12	10
Variable days	13	13
Days without sunshine	6	8
Stage of River	1½—7	

Geographical position of St. Louis (corner of Walnut and Second streets), according to Nicollet's observations:

38° 37′ 28″ North Latitude.

90° 15′ 39″ Longitude West of Greenwich.

Altitude of the City Directrix (corner of Market street and Levee) above the Gulf of Mexico, 405 feet.

Altitude of Dr. Engelmann's meteorological station, 481 feet.

Place of observation, north side of the building on the south-west corner of Fifth and Elm streets.

The results given in the above table have been obtained from observations made daily at 7 A. M., 2 P. M., and 9 P. M., and are compared with the average results of a series of years (the thermometrical observations thirty, the barometrical over twenty-eight years, the others less), so as to make them more practically valuable.

The barometrical observations are given in English inches, and are reduced to the temperature of the freezing point. The extremes given in the second column are those of all the observations made in January in twenty-eight years, and not the average extremes. The average for last month was a little higher than the general average.

The thermometrical results are given in degrees of Fahrenheit's scale. The extremes for thirty years, both the highest and the lowest, were, remarkably enough, observed during last month; the thermometer never having, in this month, for thirty years, ranged either higher or lower than in January, 1864; the range being 94.5 degrees—as much as we sometimes observe in a whole year.

The extremes were observed on self-registering thermometers; the lowest in the New Year's night, the highest in the afternoon of January 27th. The mean temperature of last month was much lower than the general average.

Relative humidity of the atmosphere, or its saturation with moisture, indicates the proportion of aqueous vapor it contains; 100 indicating complete saturation, and 0 absolute absence of vapor.

Under the head of Evaporation, I give the difference of the dry bulb open-air thermometer and the wet bulb instrument, which last, being covered with moistened muslin, is allowed to fall as much as the evaporation of the moisture will let it, the difference thus indicating the amount of evaporation. This evaporation, together with the temperature itself, indicates the amount of moisture contained in the atmosphere; but with the same proportion of saturation, it is of course much greater in warm than in cold weather.

Rain and melted snow are given in English inches. The quantity was much larger than the average, owing to the heavy rains of the 31st, consequent on the very warm weather of the previous week. On that day 2.07 inches of rain fell in fourteen hours.

Days on which it rained or snowed are called such on which rain or snow fell in a measurable quantity, any time, day or night. The number was much smaller than the average. Usually it rains or snows much oftener in this month, but much less rain descends in a certain number of hours.

Of thunder-storms we had two in one day (the 29th), while, on the average, many years pass without any in this month.

The number of fair, variable, and days without sunshine, is given, because it is found that the state of the sky had a considerable influence on the human system in health, and still more in sickness. It is seen that last month the weather was clearer than the average.

The same result is obtained by the observations on the cloudiness of the sky; absolute clearness being indicated by 0, entire cloudiness by 10, and intermediate conditions in proportion.

Though the month was much colder than January usually is, southerly winds prevailed through the greater part of the month over the westerly ones, which usually are the predominant ones. Since the day before New-Year no real storms occurred until the night of the last day of the month, though we had, several times, high winds from the west and south-east.

The stage of our river is given according to the observations made by the City Engineer, T. J. Homer, Esq. The lowest, on January 2d, was 1¾ feet, and the highest on the 11th, a little over 7 feet; after which the river fell slowly during the rest of the month, to about 4½ feet. The Mississippi was frozen over from the 1st to the 26th of January, and was all the time crossed by multitudes of men and by loaded teams of all descriptions.

FEBRUARY AND MARCH.

	February, 1864.	Average for Feb'y.	March, 1864.	Average for March.
Barometrical Pressure—				
Mean	29″.586	29″.584	29″.404	29″.535
Highest	30″.224	30″.479	29″.838	30″.305
Lowest	29″.057	28″.659	28″.861	28″.516
Temperature—				
Mean	37°.5	34°.8	39°.9	44°.4
Highest	65°.5	81°.0	70°.5	86°0
Lowest	1°.0	25°.0	15°.5	0°.0
Evaporation	5°.1	3°.2	4°3	5°.3
Relative Humidity	55.8	70.7	62.9	60.1
Rain and Snow—				
Quantity	0″.82	2″64	1″.71	3″.67
Days on which it rained or snowed	3	7	10	8
Thunder-storms	1	1.2	1	3
Principal winds	W. next NW.	W. next SE.	SE. W, and NW.	W. next SE.
Cloudiness	3.6	5.2	4.8	4.9
Fair days	12	9	10	12
Variable days	14	13	17	14
Days without sunshine	3	6	4	5
Stage of River	5-9¾ ft.		6¼–11 ft.	

The explanation for these tables is the same as that given on page 13 for the January table,

I ought to add the remark that the extremes of barometrical and thermometrical observations in the second columns are not the *average extremes*, as the heading of the column might indicate, but the actual extremes of all the observations made during those months for a number of years.

The mean temperature for February was higher than the average, as the table shows, but in thirteen out of the last thirty years it was higher yet, and in four years (1844, 1845, 1848, and 1857) it reached over 40, and in 1845 over 44.1 degrees. The lowest mean temperature in February ever observed by me, in 1838, did not exceed 20.8 degrees. The lowest temperature in February I noted on February 8th, 1835; the highest, February 29th, 1840.

In March just past, I find the mean temperature lower than the average, and only in five years out of the last thirty it was lower (1833, 1843, 1855, 1856, 1857); in 1843, in which the spring opened later than in any year observed by me, the mean temperature for March was only 27.5 degrees. The highest ever noted by me in March, occurred in the year before, 1842, with 56.7 degrees—the earliest spring of the last thirty years—both extremes happening in two consecutive years. The lowest temperature in March occurred March 2d, 1833, and the highest March 29th, 1842. It is a singular fact that twice in the last thirty years the lowest temperature has occurred in the first days of March—once in 1833, as stated, and once on March 3d, 1839. In the winter of 1838, however, one other day, December 23d, was yet colder.

Dr. Wislizenus' tables do not entirely agree with mine in temperature and relative humidity, because his hours of observation are not the same; and when the days become longer his mean temperatures would become still higher and his relative humidity still lower than my results would indicate.

The evaporation in February was much greater, the relative humidity, cloudiness, and fall of rain, much smaller, and the wind higher than is usual in this

month; indeed they were extreme, as I have never noted February as clear and dry as the last, and very few with as little rain. March gave not much more rain, but evaporation was lower, and relative humidity consequently higher than usual. The cloudiness of March was about the average; the number of fair days, however, somewhat less than usual.

APRIL.

	April, 1864.	Average for April.
Barometrical Pressure—		
Mean	29″.418	29″.483
Highest	29″.775	30″.065
Lowest	28″.971	28″.640
Temperature—		
Mean	50°.7	56°.1
Highest	78°.5	93°.0
Lowest	35°.0	18°.0
Evaporation	4°.5	7°.3
Relative Humidity	69.8	56.5
Rain—		
Quantity	5″.58	4″.08
Days on which it rained	13	9
Thunder-storms	3	5
Principal winds	NW. next SE,	W, next SE.
Cloudiness	6.9	4.8
Fair days	1	11
Variable days	18	15
Days without sunshine	11	4
Stage of River	8–19½ ft.	

The mean temperature of April has been lower than this year only three times in the last thirty years. In 1850 it was 49°.7; in 1837, 49°.5; and in 1857 as low as 44°.4—the lowest ever observed in that period. The development of vegetation took place unusually late this season, and about as late as at any season within the last thirty-two years—the extent of my observations. I have noted the peach trees and the wild-plum trees (which bloom about the same time, and the latter of which must stand for the former in this spring, as the peach blossoms were all killed last winter in the bud) in full bloom April 27th and 28th, in the years 1843, 1857, and 1864, and the apple trees in full bloom about May 5th of the same years. By far the earliest season observed by me was that of 1842, when peach trees were in bloom March 19th, and apple trees March 28th.

The average period for the former I find to be, in and close to our city, April 8th; and for the latter, April 16th. The development of the vegetation is conditioned by the temperature of both March and April together, and I find the mean temperature of both months 50°.2; in those years with latest spring, it amounted in 1843 to 41°.4, in 1857 to 42°.0, and in 1864 to 45°.8, while in the year of earliest spring, in 1842, it rose to 59°.9. I find the cause why, in this present year, with a considerably higher temperature of March and April than both other years (1843 and 1857), the vegetation is not more advanced, in the cloudiness and the absence of sunshine in April, which is quite unprecedented; the average cloudiness the table shows to be 4.8, not quite one-half, while last April it rose to 6.9, over two-thirds, and only one fair day is recorded for the month, while, on an average, we find 11 fair days in April; and 11 days without sunshine are noted, while 4 days is the average.

The number of thunder-storms was less than usual, as the low temperature of the month leads us to expect; but the number of days on which it rained, and the quan-

tity of rain which fell, were greater than usual. The average quantity of rain for April is scarcely more than four inches, while last month over five and a half inches fell. The least quantity observed in April occurred last year, when only 1.55 inches were noted; and the largest in 1850, when I measured 7.68 inches.

MAY AND JUNE.

	MAY, 1864.	AVERAGE FOR MAY.	JUNE, 1864.	AVERAGE FOR JUNE.
Barometrical Pressure—				
Mean	29″.435	29″.461	29″.517	29″.477
Highest	29″.664	29″.940	29″.678	29″.965
Lowest	29″.114	28″.611	29″.257	28″.990
Temperature—				
Mean	67°.8	66°.3	77°.3	74°.3
Highest	92°.0	97° 0	96°.0	99°.5
Lowest	37°.0	29°.0	50°.5	44°.0
Evaporation	9°.3	8°.2	9°.4	7°.9
Relative Humidity	55.7	59.7	61.8	65.1
Rain—				
Quantity	3″.90	5″.02	0″.41	5″.67
Days on which it rained	6	9	6	10
Thunder-storms	2	7	1	9
Principal winds	NW. and W.	SE, and W.	SE, and SW.	SE, S, and SW.
Cloudiness	3.7	4.5	3.5	3.9
Fair days	15	11	10	11
Variable days	15	17	19	17
Days without sunshine	1	3	1	2
Stage of River	9½–20½ ft.		9–12 ft.	

Both the months of May and June have been distinguished in this year principally by an unusual clearness of sky, low relative humidity, an unprecedently inconsiderable fall of rain, especially in June, and, in connection with that, very heavy thunder storms and a much higher temperature than the average for these months; while April had been colder, more wet and gloomy, than we usually find that month.

The mean temperature of May was not much higher than the average, and among the last ten years I noted 1859, 1862, and especially 1860, with a higher temperature. The May of 1860, with 72°.1, was the warmest observed by me in thirty years, while the same month in 1838, with only 60°.5, was the coldest noticed in this period of time.

The temperature of June was three degrees higher than the average; both 1840 and 1841 show the same mean temperature for this month, while only 1853, with 78°.3, and 1856, with 78°.5, had a higher temperature than June of this year.

Our city and its neighborhood were visited by a drought from May 10th to July 1st, which was interrupted only once, on May 24th, by a heavy fall of rain (of 1.20 inches), while six showers of June did not all together amount to more than 0.41 inches. This is so much more remarkable, as May and June are, on an average, those months which furnish larger quantities of rain than any others. Heavy rains, often accompanied by destructive hail-storms, are said to have occurred in different regions all around us, but all of them, as it would appear, very locally. I have recorded the same small quantity of rain once, in January, 1857, and once only a smaller one, 0.30 inches, in September, 1844, the year of the great flood of the Mississippi, when in May, June, and July, 26.24 inches of rain had fallen.

The vegetation, which has been very backward on account of the low temperatures of March and April, was favored only by the weather of the last week of April and the first two weeks of May. Since then the dry and (especially in the latter half of June) very warm weather has had a most deleterious influence on the development of horticultural and agricultural products.

It is believed, however, that, on the other hand, the health of the fall season will be benefited by this condition of the atmosphere. I have, through many years, observed that a wet spring and fore-summer (say April, May, and June), especially if followed by a dry and warm fall season, produces the malarious diseases most abundantly, while their virulence is more dependent on the high temperature of the latter part of the summer and autumn. But when we have less than ten inches of rain in April, May, and June, we may reasonably expect in the fall a *comparative* exemption from those malarious diseases. The average quantity of rain for those months is 14.77 inches; this year it has been only 9.89, in 1863 only 7.39, and in 1862, 10.18; while in 1859 it reached 22.51, and 1858 even 23.40 inches.

JULY AND AUGUST.

	July, 1864.	Average for July.	August, 1864.	Average for August.
Barometrical Pressure—				
Mean	29″.542	29″.512	29″.467	29″.525
Highest	29″.791	29″.867	29″.662	29″.940
Lowest	29″.333	29″.159	29″.220	29″.208
Temperature—				
Mean	80°.9	78°.8	97°.0	96°.4
Highest	97°.0	104°.0	96°.0	101°.5
Lowest	58°.0	53°.0	58°.5	44°.5
Evaporation	9°.7	8°.9	7°.3	7°.8
Relative Humidity	61.1	64.2	68.8	67.3
Rain—				
Quantity	3″.60	4″.04	4″.91	4″.20
Days on which it rained	6	7	11	7
Thunder-storms	4	6	4	5
Principal winds	SE.	SE and S.	SE. then NW	SE, then E and NE.
Cloudiness	3.3	3.6	5.4	3.7
Fair days	15	14	6	14
Variable days	16	16	25	16
Days without sunshine	—	1	—	1
Stage of River	12½–7½ ft.		7½–4 ft.	

The preponderant feature of the weather of the last two months, and indeed of the whole summer, from May to August inclusive, was the high temperature and the great drought. August, to be sure, seems to make an exception in the latter respect at least, and in and about the city more rain fell in that month than the average, as the above table will show. It ought to be borne in mind, however, that these summer rains are mostly very local, and that nearly one-half of the rain of the month (2.18 inches) fell in 2½ hours, on August 16th, while a few miles out in the country scarcely a drop fell. Near Allenton, in the western part of this county, the quantity of rain observed in the whole month was only 1.66 inches.

But even including the heavy shower of August 16th, the rain of the four months, May, June, July, and August, amounted only to 12.82 inches, while the average for those months is 18.98 inches.

The difference of the dry and wet bulb thermometers (or the Evaporation) indicates the same result of unusual dryness of the atmosphere in those four months—this summer giving 8.9, while the average is only 8.2 degrees.

The relative humidity, of course, has also been less than usual in these months, amounting to 61.8 only, while the mean of eleven years gives 64.1.

The average temperature of every one of these four months was from 0.6 (August) to 3.0 degrees (June) higher than the average of thirty years; the mean of these months was 75.7 degrees, while the average shows only 73.9 degrees.

The influence of these atmospheric conditions on the public health has been quite distinct. While all those diseases produced by excessive heat—especially diarrhœas

and dysenteries, and diseases characterized by great prostration of the nervous system and incomplete arterialization of the blood — have been quite prominent, those malarious diseases which are connected with excessive summer rains and high degrees of humidity have been comparatively of rare occurrence; and it is probable that we shall have a healthy autumn, or, at least, that the miasmatic diseases will be of a mild character.

SEPTEMBER AND OCTOBER.

	SEPTEMBER, 1864.	AVERAGE FOR SEPT'R.	OCTOBER, 1864.	AVERAGE FOR OCT'R.
Barometrical Pressure—				
Mean	29″.481	29″.560	29″.513	29″.574
Highest	29″.763	30″.214	29″.818	30″.352
Lowest	29″.132	29″.020	29″.162	28″.010
Temperature—				
Mean	71°.1	69°.3	51°.7	55°.5
Highest	102°.5	102°.5	73°.0	89°.5
Lowest	46°.0	35°.0	33°.5	21°.0
Evaporation	8°.2	6°.6	5°.3	5°.5
Relative Humidity	63.8	69.4	66.2	67.3
Rain—				
Quantity	2″.82	3″.00	3″.15	3″.84
Days on which it rained	7	6	7	7
Thunder-storms	5	4	2	2
Principal winds	SE, next SW.	SE, next S.	SW, NW, next SE.	SE, next W and NW.
Cloudiness	2.7	3.6	3.7	4.0
Fair days	19	16	18	15
Variable days	11	12	11	12
Days without sunshine	—	2	2	4
Stage of River	3-4 ft.		$2\frac{1}{3}$-$3\frac{1}{3}$ ft.	

The unusually warm weather of the summer continued to the middle of October. September was the fifth consecutive month in which the mean temperature exceeded the average, while in October it fell below it. The quantity of rain was again less, in both September and October, than the average, just as it had been less than that since May. The culminating point of heat and drought was reached in the first days of September, when an arid, scalding south-west storm—a true sirocco, continuing from the 2d to the 4th—raised the temperature in the streets of St. Louis to 100 and 102, or even 103 degrees; while in some places in this county the heat (in the shade) rose on the 2d of the month to 106 and 107 degrees. The dryness of the atmosphere on that memorable 2d of September was at one time such that the air contained only nineteen per cent. of aqueous vapor, or relative humidity as we term it, 100 indicating complete saturation. The temperature in the city did not descend quite to the freezing point in the two months, though in the country it fell below that point already on the 9th of October, and frequently afterwards.

The difference of the dry and wet bulb thermometers, which our table gives under the head of *Evaporation*, and the amount of relative humidity, indicate the same result. The quantity of rain was less than usual, as has already been stated, and the number of fair days greater, while the barometer kept considerably below the average. The stage of the river varied only between two-and-one-third and four feet—also indicating the drought which prevailed over the great extent of country drained by the Mississippi before it reaches us.

The health of the country was very favorable, as the meteorological conditions of the previous months have induced us to expect, malarious diseases being reduced to a minimum.

NOVEMBER AND DECEMBER.

	November, 1864.	Average for Nov'r.	December, 1864.	Average for Dec'r.
Barometrical Pressure—				
Mean	29″.500	29″.568	29″.537	29″.608
Highest	29″.873	30″.381	30″.127	30″.296
Lowest	28″.856	28″.724	28″.954	28″.518
Temperature				
Mean	44°.1	43°.0	30°.1	32°.8
Highest	75°.5	81°.5	72°.0	74°.5
Lowest	11°.5	–0°.5	0°.5	–7°.0
Evaporation	3°.8	4°.0	2°.7	2° 8
Relative Humidity	70.4	68.2	73.7	73.8
Rain—				
Quantity	5″.25	3″.35	2″.72	3″.19
Days on which it rained	5	8	8	7
Thunder-storms	3	1	1	1
Principal winds	SE.	W, next NW & SW.	SE and NW.	SE and W.
Cloudiness	6.4	5.6	6.6	5.2
Fair days	7	10	5	11
Variable days	16	13	18	13
Days without sunshine	7	7	8	7
Stage of River	2⅛–6¾ ft.		2¾–6¾ ft.	

The above table shows that the mean temperature of November was a little higher than the average for that month, and indeed we find, about the end of the month (the 29th), a warmer (75°.5) day than any we had since September 26th. But in December the mean temperature was considerably below the average, and lower than in any December since that very cold month in 1859. The lowest temperature in the city reached very nearly the zero point of Fahrenheit scale (on the 11th and 22d), while in the country (western part of this county) it fell as low as ten degrees below zero, again instancing the often remarked difference of temperature in city and country.

The relative humidity, as well as the quantity of rain, was considerably beyond the average in November, and a little below the average in December; but the number of days on which it rained was not in the same proportion. The rains in November were few and heavy; November 9th two inches of rain fell in a few hours, over one inch in the night before, and nearly two inches, partly snow (the first of the season), November 3d.

The humidity of the season increased the tendency to typhoid and other fevers of a low type, which generally prevail late in the fall and in the beginning of winter, especially during the prevalence of wet weather accompanied by a mild temperature. In such weather most fevers are apt to assume something of the typhoid type, characterized by great prostration of the system, long protraction of the symptoms, and a difficulty to rally, even though the affection may not be a severe one. In December, in more suitable, dryer and colder weather, this tendency gradually diminished.

TABLE Comparing the Meteorological Conditions of St. Louis in 1864 *with those of the preceding year*, 1863, *and with the average of a number of years.*

	1864.	1863.	General Average.
Barometrical Pressure—			
Mean	29″.504	29″.552	29″.542
Highest	30″.224	30″.082	30″.479
Lowest	28″.856	28″.899	28″.516
Temperature—			
Mean	54°.7	54°.6	55°.4
Highest	102°.5	95°.0	104°.0
Lowest	-22°.5	-7°.0	-22°.5
Evaporation	0°.0	5°.5	5°.8
Relative Humidity	65.2	66.8	66.3
Rain—			
Quantity	37″.61	40″.45	44″.44
Days on which it rained	86	97	93
Thunder-storms	29	37	44
Principal winds	SE. then NW and SW.	SE, then NW and W.	SE, next W, then NW & S.
Cloudiness	4.6	4.8	4.5
Fair days	130	118	142
Variable days	193	195	173
Days without sunshine	43	52	49
River—			
Average hight	7⅞ ft.	9 ft.	12 ft.
Highest rise	20⅜ ft.	18 ft.	41⅛ ft.

From this table it appears that the average barometrical pressure of last year was considerably less than the general average, and much less than the average of the year before. The monthly means of the year just passed exhibit a greater irregularity in the weight and movements of the atmosphere than is usual with us. Generally, the barometer during the year describes a certain curve, in which from its highest point in January it reaches its lowest in four months, in May, and then gradually rises again during the other eight months, until January. In the last year, however, the lowest monthly mean was attained in March; the barometer then rose until July, when it was higher than in any other month in the year except January and February; it then fell suddenly in August, and rose gradually, though not regularly, till the end of the year. The means of the months of January, February, June, and July, were higher than the average of twenty-eight years, while the means of all the other eight months were below the average. Generally, the means of the seven months from September to March are higher, and those of the five months from April to August lower, than the annual mean; but last year, January, February, June, July, October, November, and December, were higher, and March, April, May, August, and September, were lower, than the mean of the year.

The temperature of the last year was slightly higher than that of the year before, but both were lower than the average temperature of St. Louis in the last thirty years. January, March and April, October and December, were considerably below, and the other months more or less above, the average of the corresponding months in the same series of years. The table shows that we had excessive temperatures in this year. The greatest cold which I had observed in St. Louis occurred on the morning of the 1st of January, 22.5 degrees below zero. To be sure, on the morning of February 8th, 1835, I had seen the thermometer as low as 25.5 below zero, but that was some twenty miles from the city and not in the town itself, where the temperature rarely ever falls as low as in the surrounding country. On the same January 1st, 1864, the thermometer in Mr. Shaw's Missouri Botanical Garden, scarcely four miles from the center of the city, marked also, if I am correctly informed, 23°

below zero. At all events, February 8th, 1835, and January 1st, 1864, were by far the coldest days here, at least since 1832, if not since a much earlier period.

The moderate but very steady heat of the months of June, July, and August, and likewise the excessive heat of the first few days of September, have been remarked upon in former articles.

To those interested in climatological questions it may be of value to learn that our mean winter temperature, that is, the mean temperature of the months of December, January, and February, is 33°.7, varying between 26°.4 (1855-56) and 40°.4 (1845-46), and exhibiting extremes of -22°.5 (Jan. 1st, 1864) +81°.0 (Feb. 29th, 1840).

The mean spring temperature (March, April, and May) is 55°.6, between the extreme means of 48°.6 (1857) and 62°.2 (1842), the highest observed being 97°.0 (May 14th, 1836), and the lowest 0°.0 (March 3d, 1848).

The mean summer temperature (June, July, and August) has been found to be 76°.5; the lowest summer temperature was that of 1835, 72°.0; those of 1859 and 1848 were not much higher; the highest was that of 1854, with 80.1 degrees. The lowest temperature ever observed by me in the summer months was that of the mornings of June 3d, 1838, and of June 5th, 1839, viz: 43°.0; the highest, 104°.0 occurred July 21st, 1860.

Our mean autumnal temperature is 55°.9, scarcely higher than the spring average. The lowest, 51°.8, was observed in 1838, and the highest, 60°.5, in 1854. The extremes are noted down as -0°.5, November 28th, 1845, and 102°.5, September 2d, 1864.

Our climate must be considered a dry one, though a much larger quantity of moisture is precipitated, in the form of rain, snow, fog, dew, and white-frost, than in many countries which have a much more humid atmosphere.

The following table exhibits an instructive view of these conditions in the four seasons of the year. The numbers are the averages of observations made through a long series of years:

	Winter.	Spring.	Summer.	Autumn.
Relative Humidity	72.4	58.8	65.5	63.3
Cloudiness	5.2	4.7	3.7	4.4
Days on which it rained	22	26	24	21
Quantity of rain	7″.94	12″.77	13″.92	9″.81
Number of thunder-storms	2	15	20	7

The relative humidity (per centage of saturation of the atmosphere with aqueous vapors) is decidedly the greatest in winter and the least in spring; the cloudiness (0 indicating absolute clearness, and 10 an entirely overclouded or overcast sky) is also greatest in winter, but far less in summer than either in spring or fall. The days on which it rains are pretty equally divided between the seasons, though they number a little more in spring and summer than in fall and winter; but the quantity of rain is, on an average, much greater in the spring and summer than in the fall and winter. The number of thunder-storms evidently goes with the temperature: in summer we notice 20, to 2 in winter; but the number in spring is about twice as large as that in the fall, when there is not so much difference in the mean temperature.

The relative humidity is least (50–60) in April, May, and March; greater (64–65) in July, June, and December; still greater (67–68) in August, October, and November; and greatest (69–72) in September, February, and January.

In respect to cloudiness, the months arrange themselves best in three groups of four each, thus: the clearest are July, September, August, and June (3.6–3.9); then come October, May, April, and March (4.0–4.9); and the darkest are December, February, January, and November (5.2–5.6).

The quantity of rain is much greater, on an average, in the six months from March to August (3″ 67–5″ 68, all together 26″ 69) than in the other six months of the year, from September to February (2″ 11-3″ 46, together 17″ 75); but last year the rain amounted in the first period to 20″ 11, and in the second to 17″ 50, so that the deficit of more than six inches in the average annual quantity falls almost entirely upon the period from March to August.

While the averages of the observations made three times a day, at the hours of 7 A. M., 2 P. M., and 9 P. M., give pretty correctly the averages of barometrical pressure, of temperature, and so on, the same is not so true as to the observations of the direction of the wind. We do, however, assume that each of the three observations of the wind, made at the hours indicated, expresses the direction of the wind for one-third of the twenty-four or for eight hours, and base our calculations on this assumption. We find thus that south-east wind is the prevailing wind in our region throughout the year, on an average as well as in each single year. Last year this wind was noted down 287 times, the year before 285 times, in other years from 200 to 250 times, and in an average 240 times, which we might express thus: that south-east wind was blowing last year for 96 days, in 1863 for 95 days, in other years from 66 to 83 days, and on an average about 80 days in the year. The next prevailing wind is west, which, in the meantime, blows 70 days in the year; but last year and the year before were noted for only 52 days. North-west wind gives the average of 45 days, but last year was marked for 69, and 1863 for 55 days. After the north-west follows in frequency the south wind with 44 days (last year 32), then the south-west wind with 39 days (last year 55). The east wind, on an average, blows on 35 days (last year only 21; then comes the north-east wind, 28 times (in 1864 the same number); and at last the north wind, 24 times (last year only 12 days); so that north and north-east wind are the least and south-east and west wind the most prevalent with us.

In a hygienic (and I may say also in a psychiatric) point of view, the weather, and especially the amount of clear or cloudy weather, though not usually noticed in meteorological tables, seems to me to be of great importance; and I have always in my journals noted down the perfectly clear or nearly clear (fair) days, those when the sun did not appear at all, and those intermediate ones, when clouds and sunshine alternated, or haze to some extent obscured the sun. Everybody feels brighter and better when the sun shines brightly—every one is more or less depressed, is inclined to be gloomy, when the sun does not appear for several days; not to say anything of the effect bright sunshine or its absence has in many cases of sickness. It is therefore important to know that we have on an average not more than 50 days in the year, or one of seven, when we do not see the sun—never more than 80, and sometimes only 25 or 30; last year the sun did not appear on 43, and the year before on 52 days. Of clear or fair days we have on an average 142 in the year, or two out of five days; last year the number was 130, and the year before only 118, as few as I have ever seen, while in 1851 I noted 175 clear days.

I must remark that many would call fair days such as I have put among the variable days, and might on an average count 170 to 180 (or one-half) of the days of the year fair. The variable days include those that are neither fair nor overclouded, and number nearly one-half of the days of the year.

Most fair days (13–15) occur in the autumnal and summer months—September, October, July, and August; in March, May, June, and April, 11–12 days are usually fair; and in December, January, November, and February, only 9 to 10 are thus registered.

Overclouded days, without any sunshine, occur on an average mostly in winter—7–8 in January, December, November, and February; in the spring and fall months, March, April, and October, 4–5; and only 1–3 in each of the other five months, May, September, June, August, and July. September, therefore, has the greatest and February the least number of fair days, and January the greatest and July the least number of dark days.

In regard to the stage of the river, I draw attention to the fact that in 1863, and especially in the last year, the river was lower than usual, and that the greatest rise took place in the former year in March, and in the last in May, but in none of the last four years in June, when we used to expect the great freshets of the Mississippi. The river, however, is always high from March to July, in a good boating stage in February and August, but rather low from September to January, and on an average lowest in December. The lowest stage of the river was observed December 21st, 1863, the river being dammed by ice above; and the highest freshet took place in June, 1844, when on the 27th of that month the river rose 41 feet 4¾ inches above the low-water mark of December, 1863.

It can not now be ascertained whether the great freshet of 1785, which year the French settlers called "l'année des eaux," was any higher than that of 1844; from some family records and traditions, it is believed that it reached about the same hight.

METEOROLOGY OF JANUARY AND FEBRUARY, 1865.

BY GEORGE ENGELMANN, M. D., ST. LOUIS.

	January, 1865.	Average for Jan'y.	February, 1865.	Average for Feb'y.
Barometrical Pressure—				
Mean	29″.652	29″.617	29″.565	29″.583
Highest	30″.035	30″.400	30″.022	30″.479
Lowest	29″.236	28″.634	28″.769	28″.659
Temperature—				
Mean	27°.5	32°.4	37°.3	35°.3
Highest	47°.5	72°.0	60°.5	81°.0
Lowest	-1°.5	-22°.5	16°.0	-15°.0
Evaporation	2°.2	2°.6	3°.1	3°.2
Relative Humidity	75.5	72.8	72.4	70.9
Rain and melted snow—				
Quantity	0″.87	2″.07	3″.75	2″.68
Days on which it rained or snowed	5	7	9	7
Thunder-storms	–	1	1	1
Principal winds	SE, then NW.	W, next SE.	W, NE, SE and NW.	W, next SE.
Cloudiness	5.3	5.4	6.0	5.2
Fair days	13	10	8	9
Variable days	9	13	13	13
Days without sunshine	9	8	7	6
Stage of River	1¼–3¼ ft.		1¼–15½ ft.	

The explanations of these tables are the same as given on page 13 of this report.

Place of observation, on the north side of the building on the south-east corner of Fifth and Elm streets, in the heart of the city, but with free circulation of air through streets sixty and eighty feet wide, running straight east and west and north and south.

The results given in the above table have been obtained from observations made daily at 7 A. M., 2 P. M., and 9 P. M., and are compared with the average results of a series of years (the thermometrical observations thirty, the barometrical twenty-nine years, those of the rain-gauge twenty-seven years, the relative humidity twelve years, etc.).

The barometrical observations (in English inches) are reduced to the temperature of the freezing point. The extremes given in the second columns (under the head of *Average*) are the extremes of all the observations made in the month referred to, and *not* the averages of the extremes; the same is the case in regard to the extremes of temperature.

The temperature is given in degrees of the Fahrenheit scale, as that is the customary scale in this country; there is reason to hope, however, that the much more rational and convenient centigrade scale will be introduced before long, at least by men of science, and then gradually become generally adopted.

Under the head of Evaporation I give the difference of the dry-bulb open-air thermometer and the wet-bulb instrument. This last is a thermometer with the bulb covered with moistened muslin; the evaporation of the moisture, absorbing a certain amount of heat, reduces the temperature, and the amount of this fall indicates on one hand the degree of evaporation, and on the other the quantity of humidity in the atmosphere. Relative humidity is called the degree of saturation of the atmosphere with moisture, 100 indicating complete saturation, and 0 absolute absence of moisture.

The cloudiness of the sky during the month is the result of three daily observations of the state of the sky, when entire cloudiness is marked by 10, absolute clearness 0, and the different degrees of cloudiness or clearness by the numbers between 9 and 1.

The following table, which compares the meteorology of the winter just passed with that of the winter before, and with the average of the St. Louis winters, will be found quite instructive. We call Winter the period from the first of December to the last of February:

COMPARATIVE METEOROLOGY OF THE WINTERS AT ST. LOUIS.

	Winter—1864–5.	Winter—1863–4.	Average, Winter.
Barometrical Pressure—			
Mean	29″.585	29″.606	29″.603
Highest	30″.127	30″.224	30″.479
Lowest	28″.769	28″.966	28″.518
Temperature—			
Mean	31°.6	33°.8	33°.7
Highest	72°.0	72°.0	81°.0
Lowest	-1°.5	-22°.5	-22°.5
Evaporation	2°.7	3°.4	2°.9
Relative Humidity	73.9	67.9	72.4
Rain and melted snow—			
Quantity	7″.34	7″.59	7″.94
Days on which it rained or snowed	22	18	22
Thunder-storms	2	3	2
Principal winds	SE, next NW.	SE, next W and SW.	W, next SE.
Cloudiness	6.0	4.6	5.3
Fair days	26	34	30
Variable days	40	37	39
Days without sunshine	24	20	21
Stage of River—			
Mean	4½ ft.	5⅛ ft.	6½ ft.
Extremes	1¼-15½ ft.	0-10⅜ ft.	0-16½ ft.

The tables show that the barometrical pressure was higher than usual in January, lower than usual in February, and much lower on the average for the whole winter.

The temperature of January was never excessive, the thermometer only once (on the evening of Jan. 26th) sinking below zero; but the month must be called a cold

one, the mean temperature having been five degrees below the average for the month. February, on the contrary, gave a mean temperature two degrees higher than the average, but the whole winter was two degrees colder than the winter before, which, notwithstanding the excessive coldness of New Year's day, was by no means a cold winter throughout, but was, in temperature, equal to the average of winters.

The evaporation, the relative humidity, and the cloudiness, were as great or greater in both January and February and during the whole winter than in the winter before and on an average in our winters, though the quantity of rain did not show the same excess. To this humid state of a dark atmosphere we must ascribe the prevalence of low and protracted fevers of a typhoid character, and perhaps also the frequency of erysipelatous and other exanthematic diseases during the winter just passed.

The quantity of rain through the winter was a little less than in the winter before, and less than the average for the winter months; we must therefore look for copious spring and summer rains to get the necessary supply for gardens and fields, as well as for springs, wells, and for our river.

MARCH AND APRIL.

	March, 1865.	Average for March.	April, 1865.	Average for April.
Barometrical Pressure—				
Mean	29″.494	29″.533	29″.553	29″.485
Highest	29″.905	30″.305	30″.091	30″.091
Lowest	28″.928	28″.516	29″.112	28″.640
Temperature—				
Mean	45°.5	44°.5	54°.9	56°.0
Highest	71°.5	86°.0	82°.5	93°.0
Lowest	10°.5	0°.0	30°.0	18°.0
Evaporation	5°.1	5°.3	5°.7	7°.1
Relative Humidity	62.1	60.2	64.0	57.1
Rain and melted snow—				
Quantity	8″.61	3″.85	3″.31	4″.05
Days on which it rained or snowed	11	8	13	9
Thunder-storms	3	3	4	5
Principal winds	SE.	W & SE.	SE, next NW & S.	W. next SE.
Cloudiness	4.6	4.9	4.9	4 8
Fair days	11	12	12	11
Variable days	14	14	14	15
Days without sunshine	6	5	4	4
Stage of River	10-23½ ft.		16⅔-25 ft.	

As in addition to the above values the precise dates of their occurrence are interesting to many readers, I add, in the following little table, the dates of barometrical and thermometrical extremes:

	March.		April.	
	1865.	in 28 years.	1865.	in 28 years.
Highest Barometrical Pressure	on the 18th.	on the 5th—1848.	on the 8th.	on the 8th—1865.
Lowest " "	" 21st.	" 28th—1859.	" 11th.	" 28th—1846.
Highest Temperature	" 17th.	" 29th—1842.	" 19th.	" 18th—1855.
Lowest "	" 10th.	" 3d—1848.	" 8th.	" 6th—1857.

The tables show that the mean temperature of March was above the average, while the barometrical pressure fell considerably below it. In April we find, on the contrary, the barometer much higher than the average, and the mean temperature and the quantity of rain lower, while the relative humidity and the number of rainy days were, as in the preceding month, higher than usual.

The large quantity of rain in March was due to heavy rains of the 14th and 15th, when in twenty-five hours 2.69 inches fell, and principally to those of the 29th and 30th, when in forty-seven hours it amounted to 4.90 inches. The last quantity is, within my experience, unprecedented in March; but in the summer months, especially in May, June, and August, I have, in several instances, observed five, six, and even over seven inches of rain; the largest quantity on June 21st and 22d, 1848, and June 18th to 20th, 1859—in each instance within about thirty hours.

The rains in April were numerous, but mostly light, one only (on the 11th) giving over one inch in the rain-gauge.

The spring months were extremely favorable to vegetation, which developed its phases at an average period—the elms blossoming about March 19th, the peach trees being in full bloom about April 10th, and the apple trees about April 24th.

MAY AND JUNE.

	MAY, 1865.	AVERAGE FOR MAY.	JUNE, 1865.	AVERAGE FOR JUNE.
Barometrical Pressure—				
Mean	29″.446	29″.460	29″.497	29″.478
Highest	29″.737	29″.940	29″.684	29″.965
" on the	31st.	5th, 1842	1st.	4th, 1859
Lowest	29″.131	28″.611	29″.274	28″.990
" on the	20th.	5th, 1861	13th.	2d, 1842
Temperature—				
Mean	66°.8	66°.3	77°.5	74°.4
Highest	88°.0	97°.0	95°.5	99°.5
" on the	20th.	14th, 1836	24th.	9th, 1836
Lowest	41°.5	29°.0	55°.0	43°.0
" on the	1st.	2d, 1851	26th.	5th, 1839
Evaporation	7°.7	8°.2	7°.4	7°.9
Relative Humidity	62.2	59.9	67.9	65.3
Rain—				
Quantity	5″.66	5″.05	5″.21	5″.66
Days on which it rained	12	9	9	10
Thunder-storms	6	7	5	9
Principal winds	SE & NW	SE. next W	SE.	SE.
Cloudiness	3.8	4.4	4.9	3.9
Fair days	12	11	11	11
Variable days	17	17	18	17
Days without sunshine	2	3	1	2
Stage of River	12-20 ft.		$11\frac{1}{2}$-$18\frac{3}{4}$ ft.	

JULY AND AUGUST.

	July, 1865.	Average for July.	August, 1865.	Average for August.
Barometrical Pressure—				
Mean	29″.532	29″.513	29″.571	29″ 527
Highest	29″.765	29″.867	29″.755	29″.940
" on the	22d.	6th, 1859.	25th.	3d, 1842.
Lowest	29″.161	29″.159	29″.277	29″.208
" on the	19th.	13th, 1862.	21st.	12th, 1861.
Temperature—				
Mean	75°.4	78°.9	75°.9	76°.6
Highest	97°.0	104°.0	92°.5	101°.5
" on the	5th.	21st, 1860.	30th.	4th, 1861.
Lowest	55°.5	53°.0	55°.0	44°.5
" on the	17th.	4th, 1859.	23d.	30th, 1863.
Evaporation	6°.3	8°.7	7°.5	7°.8
Relative Humidity	72.2	64.8	72.6	67.8
Rain—				
Quantity	7″.94	4″.19	1″.96	4″.11
Days on which it rained	12	7	6	7
Thunder-storms	11	6	5	5
Principal winds	SW & NW.	SE, S & NW	NE & SE.	SE, NE, & E
Cloudiness	4.7	3.6	3.2	3.7
Fair days	9	14	17	14
Variable days	21	17	12	16
Days without sunshine	1	0	2	1
Stage of River	16–26¾ ft.		15¼–25¾ ft.	

While the two preceding months, May and June, were, in their meteorological condition, very nearly average ones, and were distinguished through their great uniformity, though June was warmer than that month generally is, the following month of July was a very extraordinary one. After the first hot week, which, though not reaching the temperature often experienced in that month, was the warmest of the whole summer, an unlooked-for change took place on the 7th, and from that date to the 28th we had a succession of rains (four of them amounting to between one-and-a-half to two inches of water each) such as we rarely observe in this usually the hottest and dryest of the summer months. With these rains the atmosphere was refreshed and cooled, so that the month was two degrees cooler than the preceding June, and the mean temperature fell three and one half degrees below the average, and more than eight degrees below that of the warmest months of July (1854 and 1856). The evaporation and the number of fair days were naturally less, and the relative humidity and cloudiness greater than experienced for many years; in one word, it was one of the coolest, cloudiest, most humid and wet Julys we ever experienced here.

In August the temperature did not rise much higher, but came near to the average of the month. The wet weather continued to the 16th, when a spell of dry, but not hot, weather set in. Though the quantity of rain for August was much below the average, the relative humidity was greater than usual.

The meteorological condition of both months had the influence on the health we had expected from philosophical reasoning as well as from long experience.

A wet and cool summer is always a healthy summer; and so it proved to be this year.

If a very hot August follows a wet season, the most dangerous remittent, miasmatic, or climatic, fevers (call them as you please), are rife. But August was not very dry nor very warm; so the fevers of the season, particularly within the city, were neither frequent nor malignant.

If September should prove a dry month, we shall have an abundance of intermittents, but of couse more throughout the country than in the city, and, on the whole, of a mild type. A wet September would keep the country more healthy.

COMPARATIVE METEOROLOGY OF THE SUMMERS AT ST. LOUIS.

	Summer, 1865.	Summer, 1864.	Summer Average.
Barometrical Pressure—			
Mean	29″.533	29″.509	29″.506
Highest	29″.765	29″.791	29″.965
" on	July 22d.	July 22d.	June 4, 1859.
Lowest	29″.161	29″.220	28″.090
" on	July 19th.	August 4th.	June 2, 1842.
Temperature—			
Mean	76°.3	78°.4	76°.6
Highest	97°.0	97°.0	104°.0
" on	July 5th.	July 17th and 18th	July 21, 1860.
Lowest	55°.0	49°.5	43°.0
" on	June 26, Aug. 23.	June 11th.	June 5, 1839.
Evaporation	7°.1	8°.8	8°.1
Relative Humidity	70.9	63.9	66.0
Rain—			
Quantity	15″.11	8″.92	13″.96
Days on which it rained	27	23	24
Thunder-storms	21	9	20
Principal winds	SE, next SW.	SE.	SE.
Cloudiness	4.2	4.1	3.7
Fair days	37	31	38
Variable days	51	60	50
Days without sunshine	4	1	4
Stage of River—			
Mean of five years	18¼ feet.	9 feet.	13¾ feet
Extremes of five years	11–27 feet.	4–12 feet.	4–27 feet.*

The summer just past (including the months of June, July, and August) was characterized principally by its coolness, its cloudiness, its humidity, its large quantity of rain (distributed rather evenly throughout the season), its higher barometrical pressure, and its want of extremes of any kind. If June had not been unusually warm, the coolness of the summer would have been still more marked. The above table exhibits the details proving this position. Thus it is seen that the range of the thermometer between the lowest (55°.0 on June 26th and August 23d) and the highest point reached (97°.0, July 5th) was only 42 degrees, while the extreme range of summer temperature in our climate is 61.0 degrees.

It may not be improper in this connection again to insist on the necessity of distinguishing the meteorological conditions of the country from those of the city. There the temperature of the night is much cooler—often as much as ten degrees cooler than in the city; while the warmest temperature of the middle of the day is not, or scarcely, lower. The range of temperature, the daily variation, is, therefore, much greater in the country. At the same time the quantity of ozone, or, more correctly speaking, of oxygen in the ozonized condition, in which it is most active, is much greater in the country than in the city, where all that is generated seems to be immediately consumed in combining with and partially destroying the foul effluvia produced by the mass of human beings aggregated there.

The influence of the meteorological condition of the last summer on the general health has been very visible; and, in conformity with all experience (though contrary to public opinion, which sees in rain and wet streets only causes of discomfort and illness), our citizens enjoyed unusually good health; and, as above stated, the sickness which may yet be before us during the fall months *can* not be very severe, and *may* be very light.

* Note.—The highest stage of the river in summer was observed June 27th, 1844, at 41 feet 4½ inches above the low-water mark of December, 1863. The above dates refer to the last five years.

MONTHLY MEAN OF TEMPERATURE, FAHRENHEIT.

JULY.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	67.9	77.5	82.8	83.9	80.1	73.0	77.5
1862	72.8	81.6	86.1	87.3	83.0	76.7	81.2
1863	67.9	77.1	82.8	83.9	79.9	71.4	77.2
1864	74.3	84.1	88.4	90.1	85.4	78.6	83.5
1865	70.5	78.8	82.0	81.9	79.7	73.6	77.7
Mean	70.7	79.8	84.4	85.4	81.6	74.7	79.4

AUGUST.

1861	67.8	78.8	83.8	84.7	81.5	75.0	78.6
1862	71.8	81.0	85.8	86.9	82.3	76.2	80.7
1863	69.0	76.9	83.3	84.1	79.2	72.5	77.5
1864	70.3	78.0	83.8	85.2	80.5	74.9	78.8
1865	71.0	77.3	82.3	84.1	80.0	74.1	78.1
Mean	70.0	78.4	83.8	85.0	80.7	74.5	78.5

MONTHLY MEAN OF RELATIVE HUMIDITY.

JULY.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	84.3	64.0	56.4	54.8	60.9	77.4	66.3
1862	82.7	64.1	56.5	54.3	62.8	80.7	66.8
1863	87.4	67.8	57.7	55.7	63.7	79.4	68.6
1864	79.1	61.7	53.1	51.1	59.3	72.2	62.8
1865	85.1	71.4	66.2	67.2	72.2	84.5	77.4
Mean	83.3	65.8	58.0	56.6	63.7	78.8	68.4

AUGUST.

1861	91.9	68.9	59.2	56.4	62.8	78.5	69.6
1862	83.0	63.0	52.4	48.7	60.6	78.4	64.3
1863	87.3	71.6	59.5	55.8	67.6	82.2	70.7
1864	85.3	69.2	59.1	57.3	65.5	77.4	69.0
1865	83.5	71.7	63.9	60.0	69.1	82.3	71.7
Mean	86.2	68.9	58.8	55.6	65.1	79.8	69.1

SEPTEMBER AND OCTOBER.

	SEPTEMBER, 1865.	AVERAGE FOR SEPT'R.	OCTOBER, 1865.	AVERAGE FOR OCTO'R.
Barometrical Pressure—				
Mean	29″.547	29″.560	29″.546	29″.573
Highest	29″.770	30″.214	29″.938	29″.352
" on the	19th.	20th, 1857.	29th.	15th, 1856
Lowest	29″.141	29″.020	29″.215	28″.910
" on the	6th.	30th, 1843	18th.	8d, 1854
Temperature—				
Mean	75°.5	69°.6	57°.3	55°.7
Highest	93°.5	102°.5	79°.5	89°.5
" on the	10th.	2d, 1864.	11th.	2d, 1858
Lowest	51°.0	35°.0	29°.5	21°.0
" on the	19th, 30th.	30th, 1839	29th.	31st, 1863
Evaporation	4°.6	6°.4	4°.6	5°.4
Relative Humidity	80.1	70.3	73.3	67.8
Rain—				
Quantity	2″.60	2″.98	3″.38	3″.45
Days on which it rained	10	6	7	7
Thunder-storms	5	4	0	2
Principal winds	SE.	SE, next S.	SE, next NW.	SE, next W.
Cloudiness	4.9	3.7	3.9	4.0
Fair days	7	16	18	15
Variable days	21	12	9	12
Days without sunshine	2	2	4	4
Stage of River	11 1-5–17 ft.		9¼–14 ft.	

The prominent character of these two months, especially of the first one, September, was their high temperature and their humidity. September was nearly six degrees warmer than usual, and October one and one-half degrees; last September was, in fact, the warmest in thirty years, with the exception of that month in 1844, the mean temperature of which was about one-half degree higher. The relative humidity was, in September, greater than I ever observed it in that month, and in October I have seen it only once higher. Corresponding with this, the evaporation, as indicated by the difference of the dry and wet bulb thermometers, was less than usual. The quantity of rain, however, in our neighborhood at least, was in both months slightly below the average, though the comparatively high stage of the river and the different rises which occurred indicate a greater fall of rain in the upper countries. The fair days were in September much fewer, but in October a few more than usual, and the number of variable days in proportion greater in the former and less in the latter month. The barometrical pressure was in both months less than usual.

I have, in a former number, stated that the health of the autumnal months in our neighborhood, and indeed in the whole vast Central Valley of North America, was more influenced and determined by the temperature, the humidity, and especially the fall of rain in the summer months, than by the meteorological conditions of the autumnal months themselves, which exercised only a modifying influence. After the rainy summer we had to expect a sickly fall, which could have been mitigated only by cool and wet weather, and which might have been aggravated by heat and dryness. Well, the weather in the fall was warmer than usual, but not dry; it was humid, but not wet; the evaporation was less than usual, but the temperature not low. Thus these influences neutralized, as it were, each other, and left full sway to the baneful effects of the copious summer rains. The season was a sickly one; intermittent fevers and allied typical diseases prevailed throughout the valley; but, as predicted two months ago, they did not generally present an obstinate or a dangerous character. The inhabitants of the city itself were, to a great extent, exempt from those effects, owing to our excellent system of sewerage and drainage, the good (though not very nice) drinking water furnished by our river, and the habits of city life generally.

NOVEMBER AND DECEMBER.

	November, 1865.	Average for Nov'r.	December, 1865.	Average for Dec'r.
Barometrical Pressure—				
Mean	29″.628	29″.570	29″.604	29″.608
Highest	29″.977	30″.381	30″.268	30″.296
" on the	5th.	8th, 1856	14th.	6th, 1856
Lowest	29″.098	28″.724	28″.906	28″.518
" on the	30th.	18th, 1857	11th.	8th, 1855
Temperature—				
Mean	47°.1	43°.4	30°.4	33°.8
Highest	69°.5	81°.5	62°.0	74°.5
" on the	8th.	11th, 1837	2d.	9th, 1861
Lowest	26°.0	-0°.5	-2°.0	-7°.0
" on the	5th.	28th, 1845	21st.	31st, 1863
Evaporation	5°.6	4°.1	2°.0	2°.7
Relative Humidity	59.7	67.5	79.6	74.3
Rain—				
Quantity	—	3″.22	3″.63	3″.21
Days on which it rained	—	8	6	7
Thunder-storms	—	1	—	1
Principal winds	N W & SE	W, next SE	SE.	SE, next W
Cloudiness	2.9	5.5	5.3	5.2
Fair days	22	10	10	11
Variable days	8	13	13	13
Days without sunshine	—	7	8	7
Stage of River	8¼-13½ ft.		5-10¼ ft.	

METEOROLOGY OF APRIL AND MAY, 1866.

BY GEORGE ENGELMANN, M. D., ST. LOUIS.

	April, 1866.	Average for April.	May, 1866.	Average for May.
Barometrical Pressure—				
Mean	29″.467	29″.485	29″.441	29″.459
Highest	29″.913	30″.091	29″.670	29″.940
" on the	6th.	8th, 1865.	21st.	5th, 1842.
Lowest	29″.152	28″.640	28″.842	28″.611
" on the	22d.	28th, 1846.	27th.	5th, 1861.
Temperature—				
Mean	59°.8	56°.1	64°.2	66°.3
Highest	91°.0	93°.0	87°.5	97°.0
" on the	27th.	18th, 1855.	19th.	14th, 1836.
Lowest	33°.0	18°.0	41°.0	29°.0
" on the	8th.	6th, 1857.	2d.	2d, 1851.
Evaporation	7°.9	7°.2	8°.5	8°.2
Relative Humidity	56.1	57.0	56.2	59.6
Rain—				
Quantity	1″.56	3″.69	2″.24	4″.94
Days on which it rained	6	9	7	9
Thunder-storms	3	5	2	7
Principal winds	SE.	W and SE.	SE, NW, SW, NE.	SE then W
Cloudiness	4.3	4.8	4.6	4.4
Fair days	13	11	13	11
Variable days	14	15	15	17
Days without sunshine	3	4	3	3
Stage of River—				
Mean	20¼ ft.	18 ft.	20¾ ft.	20 ft.
Extremes	12¼-26¾ ft.	8-31 ft.	14-24½ ft.	9-33 ft.

The atmospheric pressure has been, in the months of April and May, as the table shows, rather lower than the average, nor were the extremes as great as they often are; the temperature, in March lower than the average, was in April much higher, and in May considerably lower again. But the most remarkable feature of the climatic appearance of the last two months was their unusual dryness. The quantity of rain that fell in the two months together did not amount to the average quantity for April alone, and was much less than the average quantity for May. I have, in twenty-eight years, not observed as little rain in May as in this year. The relative humidity was correspondingly lower, and the number of fair days greater. The effect of this cool and dry weather on the public health has been most favorable. Though spring intermittents prevailed to a considerable extent, they were, as is always the case, owing more to the effects of the previous autumnal endemic influences, together with the first hot and changeable weather of spring, than to any peculiar effect of the latter. Spring never brings us intermittents, to any extent, unless a sickly fall precedes it. The city is thus far remarkably free of the diseases incident to our climate, and which are the effects of a wet and hot spring—such as bilious diarrhœas, dysenteries, and cholera-morbus, which, even at the late date of this writing (the end of June), have not yet made their appearance to any extent.

COMPARATIVE METEOROLOGY OF THE SPRINGS AT ST. LOUIS.

	1866.	1865.	AVERAGE.
Barometrical Pressure—			
Mean	29″.518	29″.498	29″.494
Highest	30″.078	30″.091	30″.305
" on	March 8th.	April 8th.	March 5, 1848.
Lowest	28″.842	28″.928	28″.516
" on	May 27th.	March 21st.	March 28, 1860.
Temperature—			
Mean	55°.3	55°.7	55°.6
Highest	91°.0	88°.0	97°.0
" on	April 27th.	May 20th.	May 14, 1836.
Lowest	13°.5	10°.5	9°.0
" on	March 17th.	March 10th.	March 3, 1848.
Evaporation	6°.9	6°.2	6°.9
Relative Humidity	59.4	62.8	59.1
Rain—			
Quantity	6″.60	17″.58	12″.71
Days on which it fell	20	36	26
Thunder-storms	6	13	15
Principal winds	SE, next NW.	SE, next NW.	SE and W.
Cloudiness	4.9	4.4	4.6
Fair days	29	35	34
Variable days	49	45	47
Days without sunshine	14	12	11
Stage of River—			
Mean	19 1-5 ft.	17½ ft.	17½ ft.
Extremes	13—26¼ ft.	10—25 ft.	6—33 ft.

JUNE, JULY, AND AUGUST.

	June, 1866.	Average for June.	July, 1866.	Average for July.	August, 1866.	Average for Aug.
Barometrical Pressure—						
Mean	29″.465	29″.477	29″.517	29″.518	29″.511	29″.526
Highest	29″.827	29″.965	29″.704	29″.867	29″.739	29″.940
" on the	29th.	4th, 1859	12th.	6th, 1859	5th & 16th	3d, 1842
Lowest	29″.091	28″.990	29″.360	29″.195	29″.128	29″.128
" on the	4th.	2d, 1842	8d.	13th, '62	31st.	31st, '66
Temperature—						
Mean	74°.3	74°.4	81°.7	79°.0	74°.5	76°.5
Highest	94°.0	99°.5	98°.0	104°.0	100°.5	101°.5
" on the	25th.	9th, 1836	27th.	21st, '60	12th.	4th, '61
Lowest	50°.0	43°.0	62°.0	53°.0	48°.5	44°.5
" on the	18th.	5th, 1839	1st.	4th, 1859	24th.	30th, '63
Evaporation	8°.0	7°.9	7°.9	8°.6	8°.2	7°.7
Relative Humidity	64.2	65.3	68.3	65.1	64.5	67.5
Rain—						
Quantity	5″.59	5″.66	3″.67	4″.17	5″.16	4″.15
Days on which it fell	12	10	9	7	6	7
Thunder-storms	13	9	8	6	4	5
Principal winds	SE.	SE.	SE.	SE.	NE.	SE.
Cloudiness	3.7	3.9	4.2	3.6	3.1	3.6
Fair days	8	11	10	14	14	14
Variable days	22	17	19	17	17	16
Days without sunshine	0	2	2	1	0	1
Stage of River						
Mean, feet	17′.8	18′.6	16′.4	17′.9	12′.7	12′.5
Highest	20′.5	41′.4	17′.3	39′3.	14′.6	26′.7
Lowest	15′.2	8′.8	14′.9	6′.6	11′.3	3′.8

COMPARATIVE METEOROLOGY OF THE SUMMERS AT ST. LOUIS.

	1866.	1865.	Average.
Barometrical Pressure—			
Mean	29″.498	29″.533	29″.505
Highest	29″.827	29″.765	29″.965
" on	June 29.	July 22.	June 4, 1859
Lowest	29″.091	29″.161	28″.990
" on	June 4.	July 19.	June 2, 1842
Temperature—			
Mean	76°.8	76°.3	76°.6
Highest	100°.5	97°.0	104°.0
" on	August 12.	July 5.	July 21, 1860
Lowest	48°.5	55°.0	43°.0
" on	August 24.	June 26, Aug. 23.	June 5, 1839
Evaporation	8°.0	7°.1	8°.1
Relative Humidity	65.7	70.9	66.0
Rain—			
Quantity	14″.42	15″.11	13″.98
Days on which it fell	27	27	24
Thunder-storms	25	21	20
Principal winds	SE, NW, NE.	SE, next SW.	SE.
Cloudiness	3.7	4.2	3.7
Fair days	32	37	38
Variable days	58	51	50
Days without sunshine	2	4	4
Stage of River—			
Mean, feet	15′.6	18′.1	16′.2
Highest	20′.5	26′.8	41′.4
Lowest	11′.3	11′.3	3′.8

The above tables give the meteorology, the first that of the three summer months, and the second that of the summer as a unit compared with the same periods of last year and with the average of thirty years. The investigation of the condition of the atmosphere during the last months is of greater than usual interest, because within that time the great epidemic of this century has again made its appearance among us, making it the duty of the meteorologist to investigate any possible connection of the atmospheric conditions with the spreading of the cholera, or any influence the former may have exercised on the latter. I am aware that this question is not a new one, and I know as well that very different solutions have been given—some more specious than others, but none to me quite convincing. I do not expect to solve the difficulties; I only propose to add to the stock of knowledge by giving the results of careful observations.

The tables show that June was in every way an average month. The atmospheric pressure was a little below the mean, but the temperature and the quantity of rain were almost equal to the average; the number of fair days a little less, and the number of rainy ones and of thunder-storms a little more than usual. The range of temperature was much lower than we often observe it, for it was neither as warm nor as cool as it frequently is in June.

July was also an average month as regards atmospheric pressure and quantity of rain, but the temperature was 2.7 degrees higher than the mean temperature of the month; and this was owing not so much to unusually elevated degrees of heat as to constant high temperature from the fourth to the end of the month, during which period the thermometer rarely fell below 70, and almost daily rose to 90, though seldom over 95 degrees, while a temperature of 98 to 100 is not rare with us in July. The quantity of rain was a little below the average, while the number of days on which it rained, the cloudiness, the relative humidity, and the number of thunder-storms, were greater. Heat and humidity combined began to tell on the sanitary condition of the inhabitants; and bilious diarrhœas, and dysentery, together with remittent and intermittent fevers, made their appearance among our until then unusually healthy population; sporadic cases of cholera-morbus began to show themselves—not, however, any more than we see every summer under similar circumstances.

While July was warmer, August proved to be much cooler than this month usually is in our climate. Its mean temperature was fully two degrees below the average, while the highest temperature of the summer also occurred in this month. The atmospheric pressure was a little below the average; the humidity and cloudiness were much less, and the evaporation greater, than is usual in August; the quantity of rain was also greater. This seeming anomaly, however, is easily explained if we take into consideration that by far the largest quantity of rain (three and a quarter inches) fell on the evening of the last day of the month, which fall of rain rather belongs to the month of September, initiating the uncommonly wet season of that month. Otherwise, August had only five rains, of which only one (on the 12th) was of any importance. After July 21st there was in fact no rain (with the exception of a slight sprinkle on August 7th) until August 13th, while the July heat continued almost without intermission until then, and culminated on the day before (August 12th), reaching a point above 100 degrees. The second half of the month was characterized by dry, clear, and unusually cool weather, with a prevalence of north-easterly winds. During the first week of the month the same class of diseases prevailed which were noticed in July. Cases of cholera began to multiply until, after the first week of the month, it manifested itself as an epidemic, which increased in extent and in intensity until the last week of August, when it began to abate.

The summer, as a whole, was an average one in atmospheric pressure, temperature, evaporation, relative humidity, and quantity of rain; we had more thunder-storms than usual (as many as last year), and fewer fair days; the winds were more variable, and not so predominantly from the south-east as is common in our summers.

As I have said above, the weather during the greater part of July was warm and moist, with a prevalence of easterly and south-easterly winds. July 16th to the 21st we had daily rains, mostly accompanied by thunder-storms, and the heaviest on the 19th. After the 21st the weather became more settled, clear, and dry, and quite hot, and continued so for three weeks, until August 12th—at first with north-easterly, afterwards with north-easterly and south-easterly, winds prevailing. From July 21st to August 1st the temperature never fell below 70 degrees at sunrise, nor below 90 in the warmest part of the day. In the following eleven days of August the atmosphere cooled off somewhat, so that on the morning of the 5th the thermometer indicated only 60 degrees, while on that day and on the 9th it scarcely reached 83 degrees in the afternoon. The heat soon rose again until, on the 12th (the warmest day of the summer), it exceeded 100 degrees; a violent thunder-storm and rain followed in the evening of that day. A period of delightful, clear, cool, and bracing weather succeeded, until the last day of the month, during which only two very light showers scarcely moistened the surface of the parched soil. The thermometer ranged in the morning mostly between 50 and 60 degrees, and in the early afternoon between 70 and 80; only in the three first and the four last days of this period it rose above 80, and solely on the 31st over 90 degrees. With the evening of August 31st a spell of wet weather set in, quite unprecedented in this season in our climate, which lasted until September 25th. During those twenty-six days, only eight were without measurable rain, though on some of them a dark and misty atmosphere made it worse than rain.

During all this time, embracing almost three months, the barometer showed no marked variations, but was, as is usual in this season with us, remarkably quiet and steady. From July to the middle of August it was rather high; from the middle to the end of August, somewhat lower than usual; and during September higher again, as is commonly the case in that month.

We can, then, distinguish four well-marked periods in these three months: (1) A warm and moist period from July 4th to the 21st; (2) a hot and dry period from July 22d to August 11th, succeeded by two rainy days, the 12th and 13th, which formed the transition to (3) the period of cool, clear, and dry weather, from August 14th to the 30th; and (4) a cool and very wet period, from August 31st to September 25th.

Now let us see how cholera appeared during these four periods: During the first period, of warm and moist (I might almost say tropical) weather, so favorable to the generation of such diseases, we had only isolated cases of sporadic cholera-morbus; during the second period, of hot and dry weather, it gradually but slowly increased, and assumed the epidemic form; in the third period, of cool, clear, and dry weather—healthy, bracing, and recuperative, as it ought to have been—the epidemic raged the worst, but abated suddenly towards the end of the month; during the fourth period, of cool and wet weather, it at first increased again, but then rapidly decreased, and approached, it is believed, its termination.

What, then, had the atmospheric influence to do with the advent, the spread, and the cessation of the epidemic?

Evidently very little; their effects were only secondary in so far as wet and cool weather predisposed to bowel complaints; and thus, it is believed, the sudden change of August 31st, and the succeeding cool weather, may have induced the recrudescence of the epidemic just at that time. But we must admit that the delightful weather of the middle and latter part of August can in no way be connected with the rapid increase of the cholera during most of its continuance.

The meteorological observations, therefore, give only negative results in regard to the march of this epidemic; and atmospheric conditions, evidently, have only a minor influence on it.

Experience has, however, proven that in winter the cholera has always disappeared, or, at least, has become greatly lessened. It is a disease of warm weather, which comes to us from warmer climates.

The cholera epidemics of 1849, 1850, 1851, 1852, 1854, and 1855, all agree in the great regularity of their course. They began or increased in April, augmented rapidly in May, reached their acme in June or July, and decreased still more rapidly in August, and generally died out in September or October. I thought I had discovered in this six-times-repeated regular course a stable law, according to which the epidemic increased with the, to it, most congenial condition of our atmosphere in the fore part of summer—the wet, sultry, hot weather of June and part of July, when we see cases of sporadic cholera in every year—and very abruptly left us with the advent of hot and dry weather, under the prevalence of atmospheric conditions which produce typical forms of disease, billious remittents and intermittents.

I am not now convinced that I was wrong in that position, though our present epidemic commenced when those of the years mentioned above abated. The experience of this year only proves that cholera *may* also appear late in the summer and fall. It does not invalidate the theory that the fore-summer is with us the season most congenial to its full and fatal development. It may be added that it was in the month of August, in the year 1832, that cholera for the first time appeared in St. Louis in an epidemic form; that it ceased during winter, and prevailed again in the following summer of 1833. I recollect having seen several violent cases in June of that year. If it does at all revisit our city next season, it is almost certain that June will be the month when it will be most prevalent and most pernicious.

I refrain from following up the subject of cholera and the laws of its propagation any further, because foreign to the subject of meteorology, but must be permitted to say one more word about the drinking-water that is used in our city. Contrary to an officially-promulgated opinion which condemns our river or hydrant water and recommends the use of cistern and well water, it is my own and other physicians' experience that it is much safer to make use of our river water than to drink well water. I have no experience about cistern water, but presume that in the city it to a great extent shares the bad qualities of well water, though it lacks its hardness. Both kinds of water are liable to be impregnated with the organic impurities accumulating in a large city from a thousand sources, even besides gutters, privies, and sewers, which percolate through the soil, especially where it is not composed of the solid diluvial clay of our hills, but of the porous soil of our bottom lands forming the lower part of our city, or, still worse, of the indiscriminate fillings up of many former ravines, valleys, or sinkholes. Our river water, distributed through our water-works, impure as it is, is certainly healthier than either well or cistern water. It is extensively used in almost every family, and in thousands of families among whom no case of cholera has occurred; while we have known in this visitation, as we did in 1849, many wells in different parts of the city around which cholera cases, as it were, clustered—for a great part, at least, undoubtedly induced by the use of their water.

As our well water will get worse with the increase of the number and the density of our population, a pure and healthy hydrant water becomes every year a more urgent desideratum, and such water can only be furnished us by our great Mississippi.

ATMOSPHERIC ELECTRICITY, TEMPERATURE, AND HUMIDITY.

Observations made at St. Louis, Missouri, based on daily observations at six, nine, twelve, three, six, and nine o'clock, from morning till night.

BY A. WISLIZENUS, M.D., ST. LOUIS.

1.—*Monthly Mean of Positive Atmospheric Electricity.*

JUNE.

YEAR.	6 A.M.	9 A.M.	12 M.	3 P.M.	6 P.M.	9 P.M.	Mean of Month.	No. of Thunder storms.	Prevailing Winds.
1861.....	3.8	3.6	4.1	4.6	4.8	3.0	4.0	7	SE.
1862.....	2.9	3.2	3.7	2.7	3.1	2.5	3.0	6	S, SW, NW, N, SE.
1863.....	3.4	1.9	1.8	1.3	2.2	1.3	2.0	6	NW, SE, and SW.
1864.....	3.3	4.0	5.6	5.5	3.8	2.0	4.0	2	NE and SE.
1865.....	2.7	3.1	2.8	3.9	6.0	1.9	3.4	4	S and SW.
1866.....	3.2	1.7	1.1	1.8	2.2	2.8	2.1	16	S and SE
Mean.....	3.2	2.9	3.2	3.3	3.7	2.2	3.1	7.0	

JULY.

1861.....	3.7	3.0	4.0	4.0	4.5	3.3	3.7	8	S.
1862.....	1.9	1.5	1.8	2.0	3.1	2.7	2.2	10	SE.
1863	3.2	1.5	3.8	2.9	3.6	2.1	2.8	5	SW and SE.
1864.....	2.5	1.9	2.2	2.0	2.3	2.9	2.3	8	SE.
1865.....	2.2	2.3	2.5	3.3	3.2	2.0	2.6	11	SW and S.
1866.....	2.5	1.2	2.2	1.8	4.2	2.4	2.4	9	S and SW.
Mean.....	2.7	1.7	2.7	2.7	3.5	2.6	2.7	7.0	

AUGUST.

1861.....	2.1	3.0	3.7	4.8	4.4	2.3	3.4	5	NE.
1862.....	1.7	1.6	3.2	2.5	3.9	1.2	2.3	7	SE and NE.
1863.....	4.3	4.4	4.5	4.2	6.7	2.4	4.4	12	SE and S.
1864.....	1.0	0.6	0.7	0.9	1.3	0.9	0.9	4	SE.
1865.....	5.6	5.0	6.3	7.8	7.2	3.5	5.9	6	NE and SE.
1866.....	7.9	6.1	3.7	4.1	4.7	4.4	5.1	3	NE and SE.
Mean.....	3.8	3.4	3.7	4.0	4.7	2.4	3.7	6.2	

2.—Monthly Mean of Temperature, Fahrenheit.

JUNE.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	68.5	76.6	81.5	82.7	79.8	72.5	76.9
1862	66.5	74.9	79.7	81.5	77.1	71.2	75.1
1863	61.8	72.1	76.8	78.3	75.0	67.6	71.9
1864	68.8	79.1	84.0	86.2	81.6	73.9	78.9
1865	72.7	81.0	85.6	86.6	82.6	75.0	80.7
1866	65.6	77.8	80.0	81.6	76.8	70.0	75.3
Mean	67.3	76.9	81.3	82.8	78.8	71.7	76.5

JULY.

1861	67.9	77.5	82.8	83.9	80.1	73.0	77.5
1862	72.8	81.6	86.1	87.3	83.0	76.7	81.2
1863	67.9	77.1	82.8	83.9	79.9	71.4	77.2
1864	74.3	84.1	88.4	90.1	85.4	78.6	83.5
1865	70.5	78.8	82.0	81.9	79.7	73.6	77.7
1866	73.7	82.9	86.6	87.8	84.2	77.9	82.2
Mean	71.2	80.3	84.8	85.8	82.0	75.2	79.9

AUGUST.

1861	67.8	78.8	83.8	84.7	81.5	75.0	78 6
1862	71.8	81.0	85.8	86.9	82.3	76.2	80.7
1863	69.0	76.9	83.3	84.1	79.2	72.5	77 5
1864	70.3	78.0	83.8	85.2	80.5	74.9	78.8
1865	71.0	77.3	82.3	84.1	80.0	74.1	78.1
1866	66.0	75.9	82.9	84.2	79.2	72.6	76.8
Mean	69.3	78.0	83.6	84.8	80.4	74.2	78.4

3.—Monthly Mean of Relative Humidity.

JUNE.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	86.2	70.5	60.6	59.4	66.4	81.9	70.8
1862	82.2	63.1	58.6	55.6	63.5	79.1	67.0
1863	85.1	64.5	56.7	56.2	62.8	80.9	67.7
1864	76.5	59.6	50.2	49.6	58.2	75.1	61.5
1865	81.9	65.3	58.2	56.4	63.8	82.0	67.9
1866	82.6	60.4	57.2	54.0	63.1	79.0	66.0
Mean	82.4	63.9	56.9	55.2	63.0	79.7	66.8

Relative Humidity—Continued.

JULY.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	84.3	64.0	56.4	54.8	60.9	77.4	66.3
1862	82.7	64.1	56.5	54.3	62.8	80.7	66.8
1863	87.4	67.8	57.7	55.7	63.7	79.4	68.6
1864	79.1	61.7	58.1	51.1	59.3	72.2	62.8
1865	85.1	71.4	66.2	67.2	72.2	84.5	77.4
1866	85.7	65.0	56.9	57.2	65.3	79.4	68.2
Mean	84.0	65.7	57.8	56.9	64.0	78.9	68.8

AUGUST.

1861	91.9	68.9	59.2	56.4	62.8	78.5	69.6
1862	83.0	63.0	52.4	48.7	60.6	78.4	64.3
1863	87.3	71.6	59.5	55.8	67.6	82.2	70.7
1864	85.3	69.2	59.1	57.3	65.5	77.4	69.0
1865	83.5	71.7	63.9	60.0	69.1	82.3	71.7
1866	85.8	65.6	55.2	54.3	62.1	77.0	66.7
Mean	86.1	68.3	58.2	55.4	64.6	79.3	68.7

REMARKS.—In the foregoing meteorological tables the month of August is of peculiar interest, because the long-dreaded epidemic of cholera invaded our city during this month, and carried off several thousand victims. The epidemic, which for months had been stationary in the East, made, about the end of July, a sudden jump towards the West, and appeared here earlier than we expected it, and without the usual premonitory symptoms.

It is so natural to connect this most mysterious of all diseases with atmospheric influences, that from its first beginning scientific men have tried to discover the cause of its origin and propagation in that direction; but thus far all meteorological observations have proved nothing definite. If changes in atmospheric pressure, temperature, or humidity, seemed sometimes to occur in casual connection with the disease, at other times they were entirely wanting; and the epidemic, defying meteorology, appeared in fair and unfair weather, in warm and cold seasons, in rain and in sunshine. Intense cold only, and high elevation above the sea, seemed to check its advance.

Let us compare now the meteorology of August, 1866, with the same of other years, to see if any material difference can be found with which the epidemic might be connected.

The atmospheric pressure, as appears from the tables of Dr. Engelmann, offers nothing peculiar; the barometer was at about its usual hight and range.

The month was generally dry, the quantity of rain somewhat above the mean, but the greater half of it fell on the last day of the month and in the night of the 1st day of September. The prevailing wind was, as in August of last year, the north-east wind.

Both the temperature and the relative humidity of the month were several degrees below their average mean; but that has often happened before without an epidemic of cholera. The temperature was rather unequally divided throughout the month. The first half of August was quite hot, and the second decidedly cool; on the 12th of August my thermometer reached 101.5, and on the 24th it fell as low as 49.5. The

greatest mortality occurred in the cooler part, from the 17th to the 24th of August. This change in temperature may have exerted some influence upon the number of cholera cases, but is of course not the cause of the previously-existing epidemic.

Another meteorological phenomenon has often been suspected and directly connected with cholera epidemics, to-wit—Atmospheric Electricity. Being itself a mysterious force, being less carefully observed and studied, atmospheric electricity is the bugbear to which all strange diseases are generally referred. I am not aware that during former epidemics of cholera, either here or in Europe, regular, reliable observations of atmospheric electricity have been made with exact instruments. Nevertheless, in many medical journals it has been pronounced as a fact that, during epidemics of cholera, atmospheric electricity was almost wanting, and that this want of electricity was therefore the real cause of the disease. Occasional observations made at random, and the greater or less facility in working electrical machines, form generally the foundation for such a statement. Having made for the last six years regular daily observations of atmospheric electricity, with Dellman's instrument, and having continued them during the present epidemic, I am enabled now to speak with more certainty upon this subject.

The mean quantity of positive atmospheric electricity in the month of August, 1866, was 5.1, while the average mean of August within the last six years is but 3.7. Instead of a decline, we find therefore an increase in atmospheric electricity. Does that warrant us to assume that the larger quantity of positive atmospheric electricity in this month was the cause of the epidemic? By no means. In looking over the tables we perceive that the mean quantity of atmospheric electricity in August, 1865, was still larger, to-wit—5.9. In both months the same winds were also prevailing, north-east and south-east. But there was no cholera at all in August, 1865, and an awful epidemic in August, 1866.

The number of thunder-storms in August, 1866, was but three, while the average number is six. But there raged in the night, from the 12th to the 13th of August, such a protracted and violent thunder-storm, with such a profusion of lightning, that it might well be considered equal to four thunder-storms. The two weeks following that thunder-storm exhibited the highest mortality during the epidemic, just as in 1849 the greatest mortality of the epidemic appeared after "the great fire"—proving how little the epidemic is influenced in its course by local purifiers of the atmosphere, even of such intensity as thunder-storms and large fires.

I have often tried in vain to make observations of ozone in St. Louis. Like in other large cities, all the ozone of the atmosphere is here absorbed by sulphurous, ammoniacal, and other exhalations, with which it readily combines. But a friend of mine, Mr. Ad. F. Bandelier, of Highland, Madison county, Ill., has for several years made there very careful observations of ozone, and has favored me with the following comparative result of ozone observations in August, 1865 and 1866:

The mean monthly quantity of ozone in August, 1865,	4.29
The mean monthly quantity of ozone in August, 1866,	3.82
The average mean of ozone in June, July, and August, 1865,	4.15
The average mean of ozone in June, July, and August, 1866,	3.70

"The less quantity of ozone in the summer months of 1866 was not accidental, but constant throughout the observations. The daily variation of ozone, the difference in day and night observation, was in the summer months of 1866 much less than in those of 1865. August, 1865, showed the greatest daily difference of 2.2, while August, 1866, gave the smallest one of 0.6."

Ozone, and its co-efficient, antozone, are formed, according to the latest researches (especially by Meissner), by polarization of the common neutral oxygen—ozone representing the negative, antozone the positive, pole of oxygen. But, as the subject is by no means yet exhausted, we are not warranted, on account of a slight difference in the quantity of ozone, to express an opinion in regard to the connection or disconnection of ozone with cholera. Mr. Bandelier mentions also that up to the present date no case of cholera has appeared in Highland.

Having reviewed thus all the meteorological phenomena of August, I can not reduce any one singly, or their aggregate, into a direct connection with the prevailing epidemic. During the greater part of the month, and just when the disease was most fatal, the weather was as fair and moderate as in Indian summer days, so that this discrepancy between the weather and the epidemic created general astonishment. I am therefore driven to the conclusion that our meteorological observations give but a negative result as to their direct connection with the epidemic, and that the so-called weather exerts but a limited and indirect influence upon it; not more than any excesses or sudden changes in temperature, relative humidity, electricity, etc., will generally exert upon the health of a community.

If meteorological phenomena are excluded as direct causes of cholera epidemics, in what other direction shall we look for them?

The effects of cholera upon the system are so similar to those of acute poisoning, that the word cholera-poison has been adopted by physicians of all countries. What constitutes, now, the supposed (but never elaborated or demonstrated) cholera-poison? Is it a poison proper, acting by chemical agency? or is it one of those lowest infusorial organisms, cryptogamic or animalcular, propagating themselves most rapidly under favorable circumstances by cells or spores, like ferment? The infusorial theory would account most readily for the mysterious origin and spreading of cholera epidemics, for their sudden disappearance and absence for many years, for their propagation by cholera discharges, etc. Like higher organisms, insects for instance, such infusoria, if they should prove to be animalcular, may undergo regular metamorphoses, and their germs may, by favorable or unfavorable external influences, sometimes be destroyed and sometimes be preserved by millions, as it happens with the locust, the grasshopper, the army-worm, etc. But, unfortunately, this is for the present a mere theory, because no ocular proof of such an infusorial organism has as yet been given by the microscope. But microscopy is only at the beginning of its wonderful career, and we may still entertain the hope that at some future day it will solve the riddle of the origin of cholera.* In which element, then, should microscopical researches for that purpose be instituted—in the air or in the water? Ehrenberg has found that the air is nearly as full of infusorial life as water; but since attacks of cholera begin always in the digestive organs and not in the lungs, it is more probable too that food or drink carry the poison into our system, and that water, the most general drink, is in all likelihood the most general vehicle for its introduction.

This corresponds, also, with the result of Pettenkofer's laborious researches, according to which, localities with stagnant underground water are especially infected with cholera. If this theory, that water forms the principal vehicle for the development of cholera-poison, should prove correct, it might explain, too, why St. Louis, which from its situation ought to be one of the healthiest cities, fares so badly during cholera epidemics. Both in 1849, and in the present epidemic, St. Louis has suffered comparatively more from cholera than any city in the Union. But, alas! we are also cursed with the vilest and filthiest drinking-water of any city in the country. The Mississippi water itself is not very inviting, on account of the great mass of sediment it contains, and only becomes palatable when settled and filtered. But imagine this water now collected in a large reservoir, in which this mud has been carefully preserved for years, so that the bottom of the reservoir, as of late was officially stated, holds a firm deposit of twenty-seven feet in thickness! What a glorious field for exploration this rich bottom-land must offer to the geologist, the palæontologist, the zoölogist, the botanist, the chemist, the microscopist, and the toxicologist!

From Oken's Urschleim (primitive slime), from which organic life sprang in the beginning, down to the latest sweet-water formation, every student of those sciences might collect there abundance of interesting material for his cabinet; while the

* A great step forward in a similar direction has lately been made by Dr. Salisbury, who, after long and careful experiments, found the cause of our intermittent and remittent fevers, the so-called malaria, in the minute spores of palmellæ (a kind of algæ), which, in night time, are elevated with the moist air to a hight of thirty and more feet. See American Journal of Medicine, etc., Jan. 1866.

humble citizen, who pays for his share of the supernatant liquid, is only once in a while so fortunate as to discover in his obstructed hydrant the remnants of an asphyxiated fish, or a live lizard or salamander. But these gross, heterogeneous substances which fall under the observation of all our senses, though disgusting, are, after all, not so injurious as the more subtle atoms of decomposed organic matter which escape our senses, but gradually affect our system by fermentative processes, producing diarrhœa, or keeping up at least a disposition for it. In ordinary times this tendency to diarrhœa may be controlled by diet, stimulants, and medicines, and the system may at last become used to it; but in an epidemic of cholera, when diarrhœa constitutes the first stage of the disease, the influence of such water must be doubly injurious. If cholera-poison is not directly developed in it, such water must certainly increase the liability to choleraic attacks.

In various parts of the city well water is sometimes used; but as the wells are generally dug in alluvial ground and in narrow yards, surrounded by privies, gutters, and sewers, a subterraneous connection often takes place between them, and the water of such wells, impregnated with atoms of organic ferments, becomes even more injurious than our turbid hydrant water. In 1849, and during this epidemic, I have observed some such wells forming the center of an infected neighborhood. If our citizens wish, therefore, to protect St. Louis in the future from such pernicious epidemics, let them first of all provide for an abundant supply of clear, healthy water, free from inorganic substances, and free from organic poisons.

In corroboration of what I have stated, I insert here a chemical analysis of our drinking-water, made lately by an expert chemist of our city, Dr. Theodor Weiss, at the request of the Board of Water Commissioners. His paper on the subject, instead of being hidden in the archives of the Board, deserves wider circulation, and with the kind permission of its author I lay the general result of his researches before our scientific readers:

Result of Chemical Analysis of Water taken from the Reservoir of St. Louis, on July 14th, 1866, in quantities of two pounds, and carefully filtered.

The residue collected on the filter contained:	1—Water taken from the surface of Reservoir, near the inlet.	2—Water f'm the surface of Reservoir; near the outlet.	3—Water f'm the surface in the center of Reservoir.	4—Water below the surface, close to the inlet to the hydrant pipes.
a.—Organic Substance	0.75 grs.	0.65 grs.	0.85 grs.	3.66 grs.
b.—Silica	0.85 "	0.35 "	0.55 "	26.33 "
c.—Alumina	1.05 "	1.75 "	2.05 "	4.75 "
d.—Oxyd of Iron	0.08 "	0.08 "	1.00 "	3.00 "
e.—Carbonate of Lime	0.75 "	0.65 "	1.00 "	2.50 "
f.—Carbonate of Magnesia	0.40 "	0.35 "	0.45 "	1.30 "
Total	4.28 grs.	3.83 grs.	5.90 grs.	41.54 grs.

The filtered waters gave all the same result, to-wit, in two pounds:

a.—Albumen	1.45 grains.
b.—Sulphate of Lime	1.65 "
c.—Sulphate of Alumina	0.65 "
d.—Sulphate of Magnesia	0.80 "
e.—Oxyd of Iron	0.01 "
f.—Muriate of Magnesia	0.45 "
Total of substances in solution	5.01 "

METEOROLOGY OF SEPTEMBER AND OCTOBER, 1866.

BY GEORGE ENGELMANN, M.D., ST. LOUIS.

	September, 1866.	Average for Sept'r.	October, 1866.	Average for Oct'r.
Barometrical Pressure—				
Mean	29″.526	29″.559	29″.612	29″.574
Highest	29″.804	30″.214	29″.985	30″.352
" on the	26th.	29th, 1857	16th.	15th, 1856
Lowest	29″.206	29″.020	29″.040	28″.910
" on the	1st.	30th, 1848	21st.	3d, 1854
Temperature—				
Mean	63°.3	69°.4	57°.7	55°.8
Highest	87°.5	102°.5	79°.5	89°5
" on the	2d.	2d, 1864	20th.	2d, 1858
Lowest	39°.5	35°.0	30°.5	21°.0
" on the	21st.	30th, 1889	31st.	31st, 1863
Evaporation	4°.1	6°.2	5°.5	5°.4
Relative Humidity	78.2	70.9	68.6	67.9
Rain—				
Quantity	10″.53	3″.25	2″.01	3″.39
Days on which it fell	17	7	3	7
Thunder-storms	4	4	1	2
Principal winds	NW, next SE.	SE.	SE.	SE, next W.
Cloudiness	5.7	3.8	8.6	4.0
Fair days	8	15	17	15
Variable days	16	13	12	12
Days without sunshine	6	2	2	4
Stage of River—				
Mean	14′.1	9′.5	11′.5	8′.7
Extremes	11′.0-21′.0	3′.0-21′.0	7′.7-19′.9	2′.3-19′.9

COMPARATIVE METEOROLOGY OF 1863, 1864, 1865, AT ST. LOUIS.

	1865.	1864.	1863.	Average of 30 years.
Barometrical Pressure—				
Mean	29″.553	29″.504	29″.552	29″.542
Highest	30″.268	30″.224	30″.082	30″.479
" on	Dec. 14th.	Feb. 18th.	Nov. 10th.	Feb. 10, 1857.
Lowest	28″.769	28″.856	28″.899	28″.516
" on	Feb. 25th.	Nov. 9th.	Feb. 19th.	Mar. 28, 1859.
Temperature—				
Mean	55°.9	54°.7	54°.6	55°.6
Highest	97°.0	102°.5	95°.0	104°.0
" on	July 5th.	Sept. 2d.	August 23.	July 21, 1860.
Lowest	-2°.0	-22°.5	-7°.0	-22°.5
" on	Dec. 21st.	Jan. 1st.	Dec. 31st.	Jan. 1, 1864.
Evaporation	5°.0	6°.0	5°.5	5°.8
Relative Humidity	70.3	65.1	66.8	66.5
Rain and melted snow—				
Quantity	46″.87	37″.61	40″.45	44″.52
Days on which it fell	110	86	97	93
Thunder-storms	40	29	37	44
Principal winds	SE, next NW.	SE, next NW.	SE.	SE, next W.
Cloudiness	4.5	4.5	4.8	4.5
Fair days	150	130	118	142
Variable days	169	193	195	174
Days without sunshine	46	43	52	49
Stage of River—				
Mean	13⅛ ft.	7⅜ ft.	9 ft.	11 1-5 ft.*
Extremes	1⅛–26¾ ft.	1¼–20⅜ ft.	0-18 ft.	0–41½ ft.†

* Average of five years. † Within thirty years.

The above table exhibits the result of the meteorological observations made in the last three years, compared with the average of the last thirty years. Both atmospherical pressure and temperature are shown to have been in the past year higher than usual, and higher than in the two years before, though the thermometer did not reach such a high point, nor fall as low, as the year before. The evaporation was less, the relative humidity and the quantity of rain, and the number of rainy days, greater, but the fair days also greater than usual. The meteorological character of the year 1865 may, therefore, be summed up as having been pre-eminently steady, warm, and humid, with a good deal of fair weather; all of them peculiarities which would be favorable to the respiratory organs, but produce all kinds of abdominal affections and miasmatic diseases; and such in fact we find the prevailing nosological character of the year to have been.

NOVEMBER AND DECEMBER.

BY GEO. ENGELMANN, M.D., ST. LOUIS.

	November, 1865.	Average for Nov'r.	December, 1865.	Average for Dec'r.
Barometrical Pressure—				
Mean	29″.553	29″.570	29″.570	29″.607
Highest	30″.039	30″.381	29″.985	30″.296
" on the	5th.	8th, 1856	12th.	6th, 1856
Lowest	29″.135	28″.724	28″.989	28″.518
" on the	15th.	18th, 1857	22d.	8th, 1855
Temperature—				
Mean	45°.6	43°.4	33°.5	33°.8
Highest	73°.0	81°.5	53°.5	74°.5
" on the	3d.	11th, 1837	5th & 7th	9th, 1861
Lowest	25°.0	-0°.5	8°.0	-7°.0
" on the	30th.	28th, 1845	27th.	31st, 1863
Evaporation	4°.2	4°.1	2°.5	2°.7
Relative Humidity	68.3	67.5	74.9	74.8
Rain and melted snow—				
Quantity	1″.37	3″.16	1″.87	3″.16
Days on which it fell	4	7	10	7
Thunder-storms	0	1	0	1
Principal winds	SE.	W, next SE	SE & NW	SE, next W
Cloudiness	4.4	5.1	6.3	5.2
Fair days	12	10	4	11
Variable days	15	13	10	13
Days without sunshine	3	7	9	7
Stage of River—				
Mean	10′.3	7′.4	8′.7	6′.2
Extremes	7′.5-13′.5	2′.3-13′.5	5′.8-11′.5	0′.0-14′.7

November was a rather dry and pleasant month, with a higher temperature, less rain, less relative humidity, and fairer weather, than we usually observe in this month, though in all these respects it did not reach the condition of the extraordinarily pleasant November of the year before. December, on the contrary, was a much milder and dryer month than the same month of the previous year; the mean temperature was slightly below the average; the relative humidity about equal to it, but the quantity of rain, though distributed over a larger number of days, much smaller; the cloudiness in general, and the number of overclouded and of variable days, was unusually large, and that of fair days small.

To this latter circumstance we must attribute the unusual number of gastric and gastro-enteritic affections, very often assuming the form of typhoid fever. Cases of diphtheria were also observed, but exanthematous fevers, generally so prevalent at that season and in such weather, were very rare; we seem to enjoy for the present

an almost complete immunity from these diseases. The number of deaths varied between seventy and eighty-five, certainly a very small number for a city of more than 200,000 inhabitants.

COMPARATIVE METEOROLOGY OF THE AUTUMNS AT ST. LOUIS.

	Autumn—1866.	Autumn—1865.	Autumn, Average.
Barometrical Pressure—			
Mean	29″.564	29″.574	29″.568
Highest	30″.039	29″.977	30″.381
" on	Nov. 5th.	Nov. 5th.	Nov. 8, '56.
Lowest	29″.040	29″.098	28″.724
" on	Oct. 21st.	Nov. 30th.	Nov. 18, '57
Temperature—			
Mean	55°.5	60°.0	56°.2
Highest	87°.5	93°.5	102°.5
" on	Sept. 2d.	Sept. 10th.	Sept. 2, '64
Lowest	25°.0	25°.0	-0°.5
" on	Nov. 30th.	Nov. 5th.	Nov. 28, '45
Evaporation	4°.6	4°.9	5°.2
Relative Humidity	71.7	71.3	68.8
Rain and melted snow—			
Quantity	13″.91	53″.9	9″.80
Days on which it fell	24	17	21
Thunder-storms	5	5	7
Principal winds	SE.	SE.	SE next W
Cloudiness	4.6	3.9	3.8
Fair days	37	47	40
Variable days	43	38	38
Days without sunshine	11	6	13
Stage of River—			
Mean	12′.0	11′.7	8′.5
Extremes	7′.5-21′.0	8′.2—17′.0	2′.3—21′.0

This table exhibits the meteorological condition of the autumns of the two last years compared with the average meteorology of autumns. The barometrical pressure was below the mean; the temperature much lower; the evaporation less; the quantity of rain a great deal larger; the cloudiness greater; the number of fair days less than usual, especially so when compared with the same period of the previous year. A considerable part of these peculiarities was owing to the abnormal character of September.

Malarious diseases were, to a great extent, prevented by that state of the atmosphere, but there can scarcely be a doubt that by it the foundation was laid for the low fevers, often of a typhoid character, which were prevalent in the latter part of the autumnal and the earlier months of the winter season.

COMPARATIVE METEOROLOGY OF THE LAST THREE YEARS AT ST. LOUIS.

	1866.	1865.	1864.	Average of 80 years.
Barometrical Pressure—				
Mean	29″.561	29″.553	29″.504	29″.543
Highest	30″.510	30″.268	30″.224	30″.510
" on	January 8th.	Dec'r 14th.	Febru'y 18th.	Jan. 8, 1856.
Lowest	28″.842	28″.769	28″.856	28″.516
" on	May 27th.	Febru'y 25th.	Nov'r 9th.	March 28, '59.
Temperature—				
Mean	55°.1	55°.9	54°.7	55°.6
Highest	100°.0	97°.0	102°.5	104°.0
" on	August 12th.	July 5th.	September 2d.	July 21, 1860.
Lowest	-9°0.	-2°.0	-22°.5	-22°.5
" on	Febru'y 15th.	Dec'r 21st.	January 1st.	Jan. 1, 1864.
Evaporation	5°6.	5°.0	6°.0	5°.7
Relative Humidity	67.4	70.3	65.2	66.6
Rain and melted snow—				
Quantity	43″.20	46″.87	37″.61	44″.48
Days on which it fell	95	110	86	93
Thunder-storms	39	40	29	44
Principal winds	SE, next NW.	SE, next NW.	SE, next NW.	SE. next W.
Cloudiness	4.6	4.5	4.6	4.5
Fair days	124	150	130	141
Variable days	192	169	193	174
Days without sunshine	49	46	43	50
Stage of River—				
Mean	14′.1	13′.2	7′.6	12′.4
Extremes	5′.7—26′.8	1′.2—26′.7	1′.2—20′.3	0′.0—41′.4

This table shows that the atmospheric pressure was, on an average, greater last year than it was found to be in the two previous years, and in the mean of thirty years; and in January the barometer reached a point higher than it had been observed in more than a quarter of a century. The monthly tables prove that the barometer was unusually high in the three first months of the year, while in the others, with the exception of October, it was often not equal to the average. I have not been able to connect any particular condition of health or the prevalence of any certain class of diseases with such striking conditions of atmospheric pressure, while a great deal of sickness can readily be traced to the varying conditions of temperature and humidity.

The mean annual temperature was last year below that of the year before and below the average, but was higher than in 1864. The months of April, July, October, and November, were warmer, and February, May, August, and especially September, cooler, than usual. Excessive temperature or very unusual fluctuations were not observed.

Evaporation, relative humidity, quantity of rain, and number of days on which it fell, were near the average, and intermediate between the two previous years, of which 1865 was more wet and 1864 more dry than the average.

The health of the city was very favorable, with the exception of an invasion of epidemic cholera in the months of August and September.

ATMOSPHERIC ELECTRICITY, TEMPERATURE, AND HUMIDITY.

Observations made at St. Louis, Missouri, based on daily observations at six, nine, twelve, three, six, and nine o'clock, from morning till night.

BY A. WISLIZENUS, M.D., ST. LOUIS.

1.—*Monthly Mean of Positive Atmospheric Electricity.*

NOVEMBER.

YEAR.	6 A.M.	9 A.M.	12 M.	3 P.M.	6 P.M.	9 P.M.	Mean of Month.	No. of Thunder Storms.	Prevailing Winds.
1861..	11.1	11.2	10.3	9.6	10.7	6.9	10.0	1	SE & SW.
1862..	13.5	16.3	14.5	10.1	11.6	9.7	12.6	0	W & NW.
1863..	15.0	15.2	14.3	8.4	9.8	10.2	12.1	0	W & S.
1864..	6.7	7.6	8.9	5.7	7.1	3.7	6.6	2	SE.
1865..	8.6	13.1	12.4	10.6	9.3	6.3	10.1	0	SE & NW.
1866..	10.8	13.5	10.8	8.3	9.5	8.4	10.2	0	SE.
Mean	10.9	12.8	11.9	8.8	9.7	7.5	10.3		

DECEMBER.

1861..	11.1	17.8	15.4	13.3	16.1	12.0	14.3	0	SE & S.
1862..	15.4	16.7	15.2	12.2	13.4	10.7	13.9	4	S, SE & W
1863..	13.8	16.0	11.5	9.4	9.1	9.4	11.5	0	SW & SE.
1864..	11.8	11.5	9.8	7.6	7.4	5.8	9.0	1	W & SE.
1865..	7.4	8.5	6.9	6.2	4.9	4.4	6.4	0	SE.
1866..	7.3	9.7	6.7	5.9	5.5	6.8	7.0	0	SE & W.
Mean	11.1	13.4	10.9	9.1	9.4	8.2	10.3		SE.

2.—*Monthly Mean of Temperature, Fahrenheit.*

NOVEMBER.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	36.1	42.3	51.1	52.1	49.2	45.0	46.0
1862	35.9	40.6	46.6	48.4	43.7	40.2	42.6
1863	37.3	41.4	48.3	49.8	44.8	41.3	43.7
1864	39.3	42.0	49.3	50.0	46.2	42.9	44.9
1865	39.9	44.1	53.5	55.8	49.5	45.1	48.0
1866	40.1	43.2	51.0	52.3	48.0	44.8	46.6
Mean	38.1	42.3	50.0	51.3	46.9	43.2	45.3

DECEMBER.

1861	33.6	36.1	43.8	45.6	41.5	37.4	39.7
1862	35.7	38.6	45.3	46.8	42.3	39.0	41.8
1863	31.8	33.7	38.8	40.2	36.7	34.0	35.9
1864	26.0	27.8	33.0	34.0	31.6	29.8	30.4
1865	26.3	28.0	33.2	34.9	32.0	30.3	30.8
1866	30.1	31.2	35.3	36.7	34.1	32.4	33.8
Mean	30.6	32.6	38.3	39.7	36.4	33.8	35.2

3.—*Monthly Mean of Relative Humidity.*

NOVEMBER.

YEAR.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.	MEAN OF MONTH.
1861	84.4	74.3	60.0	56.1	66.8	72.6	69.0
1862	83.6	71.0	61.8	57.2	67.9	75.3	69.5
1863	82.4	69.8	57.9	55.9	66.3	72.4	67.4
1864	87.4	79.3	64.4	62.2	72.6	79.4	74.2
1865	79.9	69.7	51.9	45.5	59.7	67.4	62.3
1866	84.8	74.9	62.1	61.0	71.7	80.3	72.5
Mean	83.7	73.2	59.7	56.3	67.5	74.6	69.1

DECEMBER.

1861	87.7	81.7	64.8	58.5	71.2	81.7	74.3
1862	88.0	75.7	66.0	62.5	77.0	78.4	74.6
1863	89.8	80.2	70.9	70.8	79.6	85.7	79.5
1864	87.8	77.4	67.5	67.8	74.8	78.0	75.5
1865	90.4	82.0	71.8	68.7	77.5	82.2	78.8
1866	89.1	78.0	69.8	69.2	74.5	80.0	76.8
Mean	88.8	79.2	68.5	66.2	75.8	81.0	76.6

YEARLY REPORT OF ATMOSPHERIC ELECTRICITY, TEMPERATURE, AND HUMIDITY.

1.—*Monthly Mean of Positive Atmospheric Electricity in* 1861-1866, *based upon daily observations at* 6, 9, 12, 3, 6, *and* 9 *o'clock, from morning till night.*

Year.	Jan.	Feb.	M'ch	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861.....	16.5	12.1	9.8	8.8	7.8	4.0	3.7	3.4	3.0	7.1	10.0	14.3	8.4
1862.....	12.1	16.0	9.4	10.6	7.5	3.0	2.2	2.3	3.0	7.7	12.6	13.9	8.4
1863.....	16.9	15.9	13.6	8.8	4.7	2.0	2.8	4.4	4.8	12.5	12.1	11.5	9.2
1864.....	15.8	11.3	11.0	5.5	5.1	4.0	2.3	0.9	1.8	5.4	6.6	9.0	6.8
1865.....	12.2	9.5	5.9	3.3	2.4	3.4	2.6	5.9	1.2	5.3	10.1	6.4	5.7
1866..... ..	5.9	8.1	5.7	2.1	3.3	2.1	2.4	5.1	3.2	7.0	10.2	7.0	5.2
Mean	13.2	12.1	9.2	6.5	5.1	3.1	2.7	3.7	2.8	7.5	10.3	10.4	7.3

2.—*Monthly Mean of Temperature and Relative Humidity in* 1861-1866, *based upon daily observations cotemporaneous with those of Atmospheric Electricity.*

TEMPERATURE.

Year.	Jan.	Feb.	M'ch.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861.....	32.2	40.4	44.8	58.1	64.1	76 9	77.5	78.6	69.1	57.9	46.0	39.7	57.1
1862.....	28.9	30.2	43.2	55.0	69.7	75.1	81.2	80.7	72.1	57.3	42.6	41.3	56.4
1863.....	36.8	35.7	43.6	57.4	65.5	71.9	77.2	77.5	69.2	48.0	43.7	35.9	56 2
1864.....	29.2	38.3	40.7	51.4	69.4	78.9	83.5	78.8	72.9	53.1	44.9	30.4	56.0
1865.....	28.1	38.4	46.7	56.8	68.8	80.7	77.7	78.1	77.8	58.8	48.0	30.8	57.5
1866.....	32.2	33.4	42.2	61.2	66.3	75 3	82.2	76.8	64.0	59.3	46 6	33.3	56.0
Mean.....	31.2	36.1	43.5	56.6	67.3	76.5	79.9	78.4	70.8	57.4	45.3	35.2	56 5

RELATIVE HUMIDITY.

1861.....	72.2	63.3	64.5	61.5	66.3	70.8	66.3	69.6	77.3	76.6	69.0	74.3	69.5
1862.....	85.3	73.9	70.8	67.0	57.3	67.0	66.8	64.3	74.2	67.2	69.5	74.6	69.8
1863.....	79.2	81.7	68.1	57.2	59.4	67.7	68.6	70.7	68.2	74.4	67.4	79.5	70.2
1864.....	75.6	62.7	70.0	69.8	56.4	61.5	62.8	69 0	64.1	67.9	74.2	75.5	67.4
1865.....	74.6	72.0	66.1	66.8	62.1	67.9	77.4	71.7	76.8	74.1	62.3	78.8	70.9
1866.....	75.1	70.6	69.1	60.6	59.7	66.0	68.2	66.7	81.8	71.7	72 5	76.8	69.9
Mean.....	77.0	70.7	68.1	63.8	60.2	66.8	68.3	68.7	73.7	71.0	69.1	76.6	69 6

METEOROLOGICAL TABLE FOR 1861—ST. LOUIS, MO.—BY DR. ENGELMANN.

MONTHS.	BAROMETER, Reduced to Freezing Point.				THERMOMETER. (Fahrenheit.)				Evaporation.*	Force of Vapor.	Relative Humidity.	Quantity of Rain and Melted Snow.	PREVAILING WINDS.	Proportion of Cloudiness.	No. of Thunder-storms.
	Mean of the Observations made daily at 7, 2 & 9 o'clk.	Highest.	Lowest.	Range.	Mean of the Observations made daily at 7, 2 & 9 o'clk.	Highest.	Lowest.	Range.							
January.....	29.579	29.953	28.864	1.089	**31.6**	**54.0**	**8.0**	46.0	**2.7**	**0.127**	72.2	1.16	SE, next W.	4.7	
February.....	29.492	29.968	28.878	1.090	39.8	74.0	14.5	59.5	4.4	0.150	63.3	2.01	W, and SE.	**5.3**	2
March	29.559	29.945	29.099	0.846	44.2	79.5	20.5	59.0	5.6	0.163	57.1	**7.38**	SE.	4.9	7
April	**29.384**	29.712	29.050	0.662	57.9	83.0	35.0	48.0	8.1	0.250	**53.5**	3.18	W.	4.4	3
May.....	29.439	29.801	**28.611**	**1.190**	64.3	90.5	49.5	50.0	8.6	0.333	56.5	4.39	W, next SE.	4.7	4
June	29.475	**29.664**	29.309	**0.355**	76.8	98.0	**57.5**	**40.5**	8.0	0.598	65.3	4.96	SE.	4.4	**9**
July	29.508	29.772	29.287	0.485	77.5	99.5	54.0	45.5	**9.4**	0.558	60.5	2.04	S, next SE.	**3.0**	3
August.....	29.512	29.737	29.208	0.529	**78.4**	**101.5**	56.5	45.0	8.6	**0.615**	64.7	3.44	NE, next E.	**3.0**	5
September...	29.559	29.891	**29.316**	0.575	68.9	95.0	42.0	53.0	5.9	0.498	**72.8**	4.14	SE.	4.0	5
October	29.529	29.906	29.224	0.682	57.2	82.0	34.5	47.5	5.6	0.311	67.6	2.85	SE.	4.0	1
November...	29.451	29.785	29.068	0.717	46.2	77.5	21.0	56.5	5.9	0.176	57.6	1.39	W, then SE, and SW.	5.2	2
December....	**29.688**	**30.152**	29.242	0.910	39.8	74.5	14.0	**60.5**	3.7	0.167	69.7	**1.09**	SE, next S.	3.7	
1861.	29.516	30.152	28.611	1.541	56.9	101.5	8.0	93.5	6.4	0.329	63.4	38.03	SE.	4.3	41

* Mean difference of dry and wet bulb Thermometers.

DIFFERENCE OF TEMPERATURE AND OF RELATIVE HUMIDITY IN CITY AND COUNTRY.

BY GEORGE ENGELMANN, M.D.

At a former occasion (Jan. 16, 1860, Trans. Vol. I., p. 693) I communicated to the Academy a paper on the Difference of Temperature of the City and Country near St. Louis; and proved, by a table of comparative observations made in the year 1859 by Mr. A. Fendler, in the valley of Rock Spring Creek, near the Pacific Railroad machine shop, and by myself at the corner of Elm and Fifth streets, that the temperature outside the city is lower than in the heart (the closely built-up part) of the city. Mr. Fendler elaborated the same theme more fully in an interesting article published in the Smithsonian Report for 1860, p. 403.

Mr. Fendler's observations for 1860 were fragmentary, but, as far as they went and could be compared, they indicated the same facts. Towards the end of that year he transferred the field of his labors to Tower Grove, Mr. H. Shaw's Missouri Botanic Garden, and there he has most assiduously continued his meteorological observations. From his journals, kindly communicated to me, and my own, I have compiled the following tables.

The Missouri Botanic Garden is situated on a moderate rise in the center of a wide prairie, now entirely under cultivation, surrounded at the distance of one mile or more by ranges of gently sloping hills or ridges; it lies to the south-west from the city proper, about three miles distant; its elevation is a little higher than that of my station.

The table on the next page explains itself; it gives the mean of the monthly observations made at both points of observation at the hours of 7 A. M., 2 P. M., and 9 P.M., and their differences; also the monthly means and extremes, and their differences. The extremes, it is necessary to observe, are not absolute, Mr. Fendler having failed to observe the temperature at sunrise, when, generally, it is lowest; they are only the extremes at the hours of observation.

The table proves again that the mean temperature is higher in the city than in the country; and further, when compared with former observations, that the difference of temperature between my location and the Missouri Botanic Garden is greater than between the same place and Mr. Fendler's former place of observation, no doubt, because farther removed from the influences of the city.

The differences were found to be:

1859, at 7 A. M., 1.8; at 2 P. M., 0.3; at 9 P. M., 2.1: mean, 1.4.
1861, " 2.1; " 1.5; " 2.8: " 2.1.

METEOROLOGICAL TABLE FOR 1862—ST. LOUIS, MO.—BY DR. GEO. ENGELMANN.

MONTHS.	BAROMETER, Reduced to Freezing Point.				THERMOMETER, (Fahrenheit).				Evaporation.*	Force of Vapor.	Relative Humidity.	Quantity of Rain and Melted Snow, in inches.	PREVAILING WINDS.	Proportion of Cloudiness.	No. of Thunder-storms.
	Mean of the Observations made daily at 7, 2 & 9 o'clk.	Highest.	Lowest.	Range.	Mean of the Observations made daily at 7, 2 & 9 o'clk.	Highest.	Lowest.	Range.							
January.....	29.576	**30.216**	29.169	**1.047**	**29.5**	**46.0**	2.5	43.5	**1.4**	0.141	**85.2**	4.01	NW and E.	8.7	2
February....	29.579	29.946	28.954	0.992	30 1	56.5	**-1 0**	57.5	2.8	**0.118**	71.3	0.80	SE and NW.	5.9	–
March.....	**29.337**	29.789	**28.828**	0.961	43.3	80.0	19.0	61.0	4.7	0.175	63.2	4.11	W.	6.5	5
April.....	29.484	27.818	29.058	0.760	54.1	80.0	36.5	43.5	6.3	0.255	61.6	4.82	W, E, then SE.	5.3	6
May.....	29.466	29.747	29.043	0.704	68.6	90.0	45.0	45.0	**9.5**	0.376	55.3	2.51	SE, then W and NE.	3.6	4
June.....	29.462	29.790	29.134	0.656	73.6	95.0	52.0	43.0	7.8	0.528	64.7	2.85	S, next SE, NW and SW.	4.3	4
July.....	29.458	29.775	29.159	0.616	**80.0**	**100.5**	58.0	42.5	7.9	**0.681**	67.8	3.61	SE.	4.0	8
August.....	29.527	29.808	**29.287**	0.521	79.1	95.5	**60.5**	**35.0**	8.0	0.653	67.2	1.32	NE, next E and SE.	3.1	4
September...	29.542	**29.738**	29.265	**0.473**	70.8	89.0	50.0	39.0	5.8	0.544	73.3	6.27	SE.	3.6	6
October.....	29.606	30.148	29.272	0.876	56.4	88.0	21.5	**66.5**	5.7	0.297	66.8	3.73	SE, then S.	3.4	2
November...	29.604	29.964	29.085	0.879	41.9	75.5	26.0	49.5	4.2	0.171	66.2	3.59	W, then SW and NW.	5.0	–
December...	**29 645**	30.138	29.214	0.924	41.4	66.0	15.5	50.5	4.0	0.172	66.6	6.38	SE and S.	4.3	5
1862.	29.524	30.216	28.828	1.388	55.7	100.5	-1.0	101.5	5.7	0.343	67.4	44.00	S E.	4.8	46

* Differences of wet and dry bulb Thermometers.

A. FENDLER'S THERMOMETRICAL OBSERVATIONS AT THE MISSOURI BOTANIC GARDEN, COMPARED WITH DR. ENGELMANN'S OBSERVATIONS IN THE CITY OF ST. LOUIS.

1861.	7 O'CLOCK A.M.			2 O'CLOCK P.M.			9 O'CLOCK P.M.			MEAN.			MAXIMUM AT 2 P.M.			MINIMUM AT 7 P.M.		
	ENGELMANN.	FENDLER.	F.—E.	ENGELMANN.	FENDLER.	F.—E.	ENGELMANN.	FENDLER.	F.—E.	ENGELMANN.	FENDLER.	F.—E.	ENGELMANN.	FENDLER.	F.—E.	ENGELMANN.	FENDLER.	F.—E.
January	26.4	24.5	-1.9	36.5	34.8	-1.7	32.0	30.3	-1.7	31.6	29.9	-1.7	54.0	51.0	-3.0	8.0	6.0	-2.0
February	33.5	32.1	-1.4	46.2	44.7	-1.5	39.6	38.0	-1.6	39.8	38.3	-1.5	74.0	70.0	-4.0	14.5	14.0	-0.5
March	38.3	36.8	-1.5	50.8	48.9	-1.9	43.6	42.1	-1.5	44.2	42.6	-1.6	79.5	76.5	-3.0	21.0	17.0	-4.0
April	53.0	51.0	-2.0	64.9	62.7	-2.2	55.7	54.6	-1.1	57.9	56.1	-1.8	83.0	81.0	-2.0	38.0	35.0	-3.0
May	59.5	57.6	-1.9	72.1	69.5	-2.6	61.4	59.5	-1.9	64.3	62.2	-2.1	90.0	86.0	-4.0	46.5	42.0	-4.0
June	73.4	71.3	-2.1	83.7	82.0	-1.7	73.3	70.0	-3.3	76.8	74.4	-2.4	98.0	95.0	-3.0	64.0	59.0	-5.0
July	73.1	71.8	-1.3	85.2	84.1	-1.1	74.1	69.2	-4.9	77.5	75.0	-2.5	99.5	99.0	-0.5	61.0	60.0	-1.0
August	73.2	71.4	-1.8	86.3	85.0	-1.3	75.7	71.2	-4.5	78.4	75.9	-2.5	101.5	103.0	+2.5	61.0	59.0	-2.0
September	63.4	61.4	-2.0	77.0	75.9	-1.1	66.2	62.8	-3.4	68.9	66.7	-2.2	95.0	93.0	-2.0	44.0	42.0	-2.0
October	50.8	47.3	-3.5	65.7	64.8	-0.9	55.2	51.8	-3.4	57.2	54.6	-2.6	82.0	82.0	0.0	35.0	28.0	-7.0
November	40.0	37.0	-3.0	53.0	51.9	-1.1	45.7	43.2	-2.5	46.2	44.0	-2.2	77.5	78.0	+0.5	21.0	16.5	-4.5
December	34.3	31.8	-2.5	46.7	46.3	-0.4	38.4	35.6	-2.8	39.8	37.9	-1.9	74.5	76.0	+1.5	14.0	6.5	-7.5
Means	51.6	49.5	-2.1	64.0	62.5	-1.5	55.1	52.3	-2.8	56.9	54.8	-2.1	84.0	82.5	-1.5	35.7	32.1	-3.6
Extremes	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	101.5	103.0	+2.5	8.0	6.0	-2.0

Thus the law found in 1859 is confirmed by another year's observation:

The difference is greatest at 9 P. M., less so at 7 A. M., and least at 2 P. M.

I have no doubt that observations made at sunrise would prove the difference of temperature at that time of the day to be greater than at any other hour. With the rising of the sun the difference steadily diminishes until the temperature of the day has reached its maximum, when it increases again through the evening and night to the period of minimum temperature at sunrise.

The mean difference of temperature in the city and country was found, in 1859, to be a little less than the mean of the 7 o'clock observations; in 1861 it was equal to the same. The differences in both years are greater in the summer and fall months, and less in the winter and spring months.

The last columns of the table show that the minimum temperatures (at least, at the hours of observation) are always lower in the country than in the city, to the amount, on an average, of 3.6 degrees. The maxima are usually, but not always, lower in the country, but the difference is on an average only of 1.5 degrees; and the highest temperature, during the very hot weather in the beginning of August, was found higher in the country than in the city.

Another interesting result is obtained by comparing both sets of observations in regard to the difference of Evaporation and of Relative Humidity in city and country. The amount of evaporation is indicated by the difference of the dry and wet bulb thermometers. Mr. Fendler's wet bulb thermometer was generally not as much below my wet-bulb as his dry-bulb was below mine, consequently the difference was almost always less at his station than at mine; three times it was equal, and twice (at 7 A. M. in January and in December) it was even a little greater in the country.

The average results for the year may be summed up thus:

	7 A.M.	2 P.M.	9 P.M.	MEAN.
Difference of Dry-Bulb Thermometers	2.1	1.5	2.8	2.1
Difference of Wet-Bulb Thermometers	1.2	0.2	1.8	1.1
Difference of the differences	0.9	1.3	1.0	1.0

The following table exhibits the difference of Evaporation and Relative Humidity, at the different hours of observation, in each month of the year:

Difference of Temperature and Relative Humidity in the City and Country.

1861.	DIFFERENCE OF EVAPORATION, F.—E.				DIFFERENCE OF RELATIVE HUMIDITY, F.—E.			
	7 A. M.	2 P. M.	9 P. M.	MEAN.	7 A. M.	2 P. M.	9 P. M.	MEAN.
January	+0.1	—1.0	—0.3	—0.4	—2.0	+8.6	+1.8	+2.8
February	—0.2	—1.1	—0.3	—0.5	+1.1	+6.3	+1.3	+2.9
March	—1.0	—1.2	.....	—0.8	+8.3	+5.7	+1.2	+5.1
April	—1.2	—2.6	—0.6	—1.4	+6.5	+10.6	+2.8	+6.6
May	—1.8	—2.1	—0.9	—1.6	+8.9	+6.0	+3.8	+6.2
June	—1.5	—2.7	—1.9	—2.1	+6.8	+8.3	+6.4	+7.2
July	—0.7	—1.3	—2.7	—1.5	+2.5	+4.1	+10.7	+5.8
August	—1.2	—0.8	—2.1	—1.4	+5.1	+1.9	+8.0	+5.0
September	—1.5	—0.4	—1.8	—1.2	+7.9	+1.0	+8.7	+5.9
October	—1.5	—0.9	—1.2	—1.2	+11.5	+3.5	+6.0	+7.0
November	—0.7	—1.1	.....	—0.6	+4.3	+5.4	—2.6	+2.4
December	+0.3	—0.1	—0.3	.....	—2.5	+0.3	—1.1	—1.1
Mean	—0.9	—1.3	—1.0	—1.1	+4.9	+5.1	+3.9	+4.6

This table proves, as a general rule, perhaps contrary to preconceived opinion, that the evaporation is less in the country than in the city, and that consequently the relative humidity is greater there, though the single data seem to be so irregular as to suggest doubts as to their perfect reliability.

The greatest difference in evaporation as well as in relative humidity seems on an average to occur at the warmest time of the day, at 2 P. M.; the least difference of evaporation at 7 A. M.; and the least difference of relative humidity at 9 P. M. The table proves further that the differences of relative humidity are much smaller in winter (November to February) than in the warmest months of the year. It was found, on an average, to amount to nearly 5 per cent., but in June and October it reached 7 per cent.; while in January, February, and November, it was under 3 per cent., and in December it seems to have been even a little less in the country than in the city. In winter and spring the differences are much greater on mornings and evenings; in the latter part of the summer and in fall, they are much higher in the middle of the day than at any other period.

Another interesting result of Mr. Fendler's observations is that the quantity of rain for the whole year was, at his place of observation, over three inches less than I found it in town, though in the months of August, September, November, and December, he recorded a larger fall of rain than I did. A difference in the instruments, or in their exposure, may partly account for the different results; but it coincides with a well-known and often-noted fact, that over a large city, and immediately on the banks of a large river, the fall of rain is heavier than in the interior. Still farther off the river, and especially in the great prairies east as well as west of us, the fall of rain is stated to be still smaller.

The following results of our comparative observations may be considered as substantiated:

1. The temperature is lower in the country than in the city.
2. The difference is greatest at night and least in the middle of the day.
3. It is greater in summer and autumn, and less in winter and spring.
4. The daily as well as annual ranges of the thermometer are therefore greater in the country, and greatest in summer and autumn.
5. The evaporation is greater in the city than in the country, and the difference is greater in day-time than at night, and greater in summer than in winter.
6. The relative humidity is greater in the country than in the city; the difference is smaller in winter, and greater in spring, summer, and autumn—during the months of active vegetation.
7. The annual fall of rain is greater in the city than in the country, though in some months this rule may be reversed.

These facts, especially 2, 4, and 6, explain to a great extent the difference in the hygienic conditions of city and country; but it would be foreign to the subject of this paper further to enter into this interesting and eminently-practical investigation.

FALL OF RAIN IN ST. LOUIS DURING TWENTY-THREE YEARS — 1839 TO 1861.

YEARS.	Jan'y.	Feb'y.	March.	April.	May.	June.	July.	August	Sept'r.	Oct'r.	Nov'r.	Dec'r.	TOTAL.	Winter	Spring	Sum'r.	Fall.	Sept'r of year before to Feb.	March to August
1839	2.21	2.50	2.59	5.46	7.93	7.26	5.71	2.89	2.45	3.96	2.48	2.00	47.44	5.21	15.98	15.86	8.89	11.21	31.84
1840	1.80	1.38	2.10	3.31	4.58	6.27	2.36	7.15	3.96	6.30	1.73	0.71	41.65	5.18	9.99	15.78	11.99	14.07	25.77
1841	0.84	0.88	4.99	3.85	2.38	1.67	3.09	5.63	3.22	6.81	5.44	3.93	42.73	2.43	11.22	10.39	15.47	14.42	21.61
1842	0.45	3.90	2.21	3.48	3.22	5.12	1.76	2.64	2.17	2.57	2.38	2.39	32.29	8.28	8.91	9.52	7.12	23.75	18.43
1843	2.34	1.90	3.49	4.87	4.15	3.95	2.49	1.32	2.19	1.55	4.82	1.72	34.79	6.63	12.51	7.76	8.56	13.75	20.27
1844	3.36	1.73	4.84	3.86	11.26	6.85	8.13	0.45	0.30	2.25	1.17	1.61	45.81	6.81	19.96	15.43	3.72	14.57	35.39
1845	1.83	1.07	3.18	2.28	4.42	10.01	4.75	6.23	1.03	1.16	1.10	0.93	37.99	4.51	9.88	20.99	3.29	28.23	30.87
1846	2.98	1.27	1.27	4.84	3.75	5.21	0.84	4.73	4.84	2.71	2.11	10.90	45.45	5.18	9.86	10.78	9.66	8.47	20.64
1847	2.12	3.58	2.28	3.98	4.36	8.61	5.37	0.90	3.26	8.74	8.63	0.89	52.72	16.60	10.62	14.88	20.63	26.26	25.50
1848	1.86	2.27	6.61	3.16	8.10	17.07	5.37	9.74	1.12	2.41	1.91	5.74	65.36	5.02	17.87	32.18	5.44	25.65	50.05
1849	4.18	0.56	2.70	2.64	2.71	6.46	9.40	5.15	5.81	2.17	2.11	1.82	45.71	10.48	8.05	21.01	10.09	15.92	29.06
1850	1.94	4.10	5.63	7.68	7.47	1.47	4.83	2.10	3.74	2.71	6.24	2.59	50.50	7.86	20.78	8.40	12.69	17.95	29.18
1851	0.61	6.74	3.14	4.70	2.83	6.19	1.77	8.97	0.49	1.51	1.99	3.90	42.84	9.94	10.67	16.93	3.99	22.63	27.60
1852	0.99	2.12	7.67	2.28	5.19	10.25	3.36	1.60	1.47	5.26	3.29	3.48	46.96	7.01	15.14	15.21	10.02	11.00	30.35
1853	0.52	1.67	0.79	3.24	3.64	3.23	4.10	5.48	4.67	0.96	1.51	1.08	30.89	5.67	7.67	12.81	7.14	15.69	20.48
1854	1.18	3.11	7.49	7.60	6.30	3.21	0.92	1.80	1.44	4.15	1.94	1.49	40.63	5.37	21.39	5.93	7.53	12.51	27.32
1855	4.66	0.70	2.89	2.65	7.46	4.27	5.17	6.53	3.89	3.89	5.16	3.10	50.37	6.85	13.00	15.97	12.94	14.38	28.97
1856	1.03	3.64	1.06	6.35	3.03	1.24	4.61	6.32	3.51	2.10	4.90	4.29	42.08	7.77	10.44	12.17	10.51	20.71	22.61
1857	0.41	7.74	1.80	1.72	4.81	3.71	2.82	4.15	3.18	3.02	3.80	1.87	39.03	12.44	8.33	10.68	10.00	22.95	19.01
1858	3.42	2.12	3.96	6.07	10.64	6.69	8.03	2.87	3.86	7.73	4.92	8.52	68.83	7.41	20.67	17.59	16.51	17.41	38.26
1859	2.32	5.35	7.32	4.89	6.60	11.02	5.54	2.93	4.44	1.80	5.43	3.76	61.40	16.19	18.31	19.49	11.67	32.70	38.30
1860	1.80	2.60	1.16	2.03	2.29	6.58	2.97	2.96	2.11	1.58	1.63	2.08	29.79	8.16	5.48	12.51	5.32	19 83	17.99
1861	1.16	2.01	7.38	3.18	4.39	4.96	2.04	3.44	4.14	2.85	1.39	1.09	38.03	5.25	14.95	10.44	8.38	10.57	25.39
Mean of 23 years	1.91	2.74	3.76	4.09	5.28	6.14	4.15	4.17	2.93	3.40	3.31	3.04	44.92	7.69	13.13	14.46	9.64	17.33	27.99
Minimum	0.41	0.56	0.79	1.72	2.29	1.24	0.84	0.45	0.30	0.96	1.10	0.71	29.79	2.43	5.48	5.93	3.29	8.47	17.99
Maximum	4.66	7.74	7.67	7.68	11.26	17.07	9.40	9.74	5.81	8.74	8.63	10.90	68.83	16.60	21.39	32.18	20.63	32.70	50.59

FALL OF SNOW (MELTED) IN ST. LOUIS IN TWENTY-THREE YEARS—1839 TO 1861.

YEAR.	January.	Febr'y.	March.	April.	October.	Nov'r.	Dec'r.	Total for the year.	Total for season.
1839	0.02	.....	0.38	.....	.....	0.40	1.60	2.40	0.92
1840	1.20	0.05	0.05	.....	.....	0.24	0.16	1.70	3.30
1841	0.71	0.45	1.39	.....	.....	0.07	0.10	2.72	2.95
1842	0.01	0.39	0.01	.....	.....	0.99	0.05	1.45	0.58
1843	1.46	0.81	0.87	0.21	0.03	0.44	1.72	5.54	4.39
1844	0.53	0.13	0.73	.....	.....	0.05	0.03	1.47	3.58
1845	0.91	.....	0.48	.....	.....	0.49	0.17	2.05	1.47
1846	1.16	1.25	0.03	.....	.....	.....	1.62	4.06	3.10
1847	0.99	1.20	0.87	.....	.....	.....	0.06	3.12	4.68
1848	0.56	.....	0 24	.....	.....	.....	1.41	1.21	0.86
1849	0.81	0.10	.....	.....	.....	.....	1.46	2.37	1.32
1850	0.70	1.02	1.84	0.63	.....	.....	0.88	5.07	5.65
1851	.....	1.23	0.04	0.65	.....	1.29	0.18	3.39	2.80
1852	0.71	0.23	.....	.....	.....	0.06	0.06	1 06	2.41
1853	0.15	0.92	0.06	.....	.....	.....	0.73	1.86	1.25
1854	1.15	.....	0.08	.....	.....	0.08	0.22	1.53	1.96
1855	0.55	0.23	0.80	.....	0.18	.....	0.24	2.00	1.88
1856	1.03	1.58	0.93	.....	.....	.....	.....	3.54	3.96
1857	0.41	.....	0.16	0.04	.....	0.09	.....	0.70	0.61
1858	.....	1.14	.....	.....	.....	0.50	.....	1.64	1.23
1859	0.81	0.14	0.05	0.09	.....	0.01	1.98	3.08	1.59
1860	0.43	0.22	.....	.....	.....	0.44	0.35	1.44	2.64
1861	0.39	0.04	0.03	.....	.....	.....	0.59	1.05	1.25
Mean of twenty-three years	0.64	0.48	0.39	0.07	0.01	0.22	0.55	2.37	2.36
Maximum	1.46	1.58	1.84	0.65	0.18	1 29	1.98	5.54	5.65
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.58

FALL OF RAIN (INCLUDING MELTED SNOW) IN ST. LOUIS, FROM 1839 TO 1861.

BY GEORGE ENGELMANN, M.D.

The foregoing tables are the result of my observations continued through a series of twenty-three years. They exhibit in English inches the monthly quantities of atmospheric water, which is precipitated in the form of rain or snow, and their sums and averages.

My rain-gauge is placed on the roof of my house, but, unfortunately, not entirely free from the influences of currents of winds produced by neighboring chimneys and houses; the results, however, are probably not far from the actual quantities.

The first twelve columns of the first table give the monthly and the thirteenth the annual quantities; the next four exhibit the quantities of the four seasons, taking December, January, and February, for winter; March, April, and May, for Spring, etc. The last two columns comprise the rain of the fall and winter months and that of the spring and summer months.

The quantity of rain in the different years varies, as the table shows, between near thirty and near sixty-nine inches, the average being nearly forty-five inches.

The monthly amount of rain increases from January, when on an average it is less than two inches, to June, when it reaches over six inches; and then varies through the remaining six months of the year between three and four inches, being least in September.

The quantity of rain is smallest in December, January, February, and September, reaching only three inches or less; and greatest in May and June, over five inches. The quantity in the three summer months is greater than in any other season; the three spring months come near to it. The average amount of rain in the spring and summer months over twenty-seven inches is about sixty-two per cent. of the annual fall; while only seventeen inches, or thirty-eight per cent., falls to the share of the other six months of the year. The last columns, however, of the table show that this is by no means so in each single year; we find three years among the twenty-three when the fall and winter rains predominated over the spring and summer rains.

Another series of observations establishes the fact that the quantities of rain which descend in a given period of time increase regularly from January to July, and decrease again from that month to January at the following ratio:

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.
Inches rain per hour	0.03	0.05	0.06	0.08	0.15	0.20	0.23	0.19	0.13	0.10	0.07	0.06	0.10

So that in July nearly seven times as much rain is precipitated in a given time as in January, and the four inches of rain of the former month fall, on an average, in the short period of eighteen hours, while the less than two inches of rain (or snow) of January require fifty-five hours for their precipitation.

The number of days on which it rained or snowed in each month during twenty-nine years, from 1832 to 1861, is exhibited in the subjoined table:

		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
No. of days.	Average....	7	8	8	9	9	10	7	7	6	7	8	7	93
	Minimum..	3	4	3	4	4	4	4	2	1	2	3	3	69
	Maximum..	12	13	15	14	16	18	14	14	12	13	11	12	113

We have in almost every year, in the months of June, July, or August, one or more falls of two and sometimes of three and even four inches of rain within a few hours, or even within a single hour; in a few exceptional instances, the quantity precipitated in twenty-four hours, or less, has reached as high as five and six inches. This has happened four times in the year 1848—May 6th, June 2d, June 21st, and August 15th—and in no other year as far as I have observed it.

The second table (page 58) exhibits the amount of snow which fell during the same period of time, the snow having been melted and measured as inches of water. The average quantity, it will be seen, does not amount to quite two and a half inches, which corresponds to about two feet of snow. This quantity of snow, however, never accumulates in our climate, and, indeed, snow rarely covers the ground for more than one or at most two weeks at a time.

The greatest average quantity is recorded for January; next comes December and February, and then March. In April, falls of snow have taken place only five times, and in October only twice, in the last twenty-three years.

The last column gives the quantities of snow for each winter, from October of the previous year to April of the year in which the number is placed. It will be seen that in the winter of 1841 to 1842 (one of the mildest winters we have had, and followed by the earliest spring), the snow water scarcely amounted to more than half an inch —about five inches of snow; in the winter of 1849-1850 it reached over five and a half inches (about 4-5 feet of snow), the average being nearly two and a half inches of snow water, corresponding to two feet of snow.

METEOROLOGY OF ST. LOUIS.

BY DR. G. ENGELMANN.

At the annual meeting of the Academy of Science at St. Louis, January 7th, Dr. Engelmann laid before the Society two meteorological tables, the first the result of his observations during the past year, and the second embracing the average results of observations carried on in this city for over thirty years. This latter table exhibits a fair average of the atmospheric changes of this region. The first four columns show the means and extremes of the barometric pressure during that period of time. The first column exhibits the interesting fact that the average hight of the barometer in St. Louis, and we may say in the Central North American Valley in general, is greatest in January, decreases gradually until, in May, it reaches its lowest point, and then rises again till January, and that in this course there is only one little irregularity—a slight depression in November. The next two columns show the greatest extremes and greatest fluctuations from September to April, and the least from May till August; in July and August the barometer always ranged between 29 and 30 inches, while the range of the whole year lies between 28.5 and 30.5 inches. This

same fact is exhibited in the fourth column, which shows the range in the months of June, July, and August to be less than one inch, and that of the other nine months over one inch. It is, of course, not understood that in every year such high range is attained, but only in the course of years are such extremes observed.

The columns of the thermometrical results are still more interesting. They would show that the mean temperature of the month increases from January to July, and then decreases regularly to January—January being, on an average, the coldest, and July the warmest, month of the year; and that not even in January does the mean temperature fall below the freezing-point. The mean temperature of the year is 55.6. This would exhibit a very favorable condition of atmospherical temperature, if the next two columns, giving the extremes, did not prove our climate one of excesses, which occasionally presents a heat of 104 and a cold of more than 22 degrees, or a range of over 126 degrees. The range of temperature is just like the range of atmospheric pressure, highest in winter and lowest in summer—in January and February over 90 and from June to August less than 60 degrees. In July the temperature never comes down below 53, in June and August never below 43, in September not below 35; but in all the other months it occasionally (in April, May, and and October) or regularly (from November to March) falls below this vital point.

All this refers to the temperature in the city. In the country the means are lower, the extremes are greater, and especially the low temperatures (according to locality, and wind and sky) from 2 to 6, and sometimes even 10 or 12, degrees lower than in the city.

The next column, under the head of Evaporation, shows the difference of temperatures of the dry and wet bulb thermometers, produced by the evaporation of water, and thus indicating the rapidity and quantity of evaporation, greatest in July (8.6 degrees) and least in January (2.6 degrees), on an average 5.7 degrees, proving our climate, notwithstanding the heavy fall of rain (of which hereafter), a very dry one.

This same fact is exhibited in the column headed Relative Humidity. In making up this column the absolute dryness (which, however, never exists in any climate), when no aqueous vapor is dissolved in the air, is considered zero, and complete saturation of the air with moisture is 100; the degrees between 40 and 80 are the usual ones observed in our climate. It will be seen that April, with 57, was on an average the dryest, and December, with over 74, the most humid month. April and May ranged under 60, March to November (with the exception of September) under 70, and December to February, and September, over 70.

Force of Vapor indicates the pressure of the vapor dissolved in the air, on the mercurial column, thus adding to the weight of the atmosphere; it is by far the greatest in the warm months and the least in the colder ones.

The quantity of rain (including melted snow) which descends in the year is great. While the humid climates of Western Europe exhibit only an annual average of between 20 and 30 inches, we have, in our dry climate, a fall of nearly 44.5 inches. But this quantity falls in a short period of time—as observations show, in 450 hours in the whole year, and sometimes 1 or 2 inches, or even more, in one hour—and thus does not saturate our soil or our atmosphere with the same quantity of moisture that a smaller amount of rain with a lower temperature, and distributed over a greater number of hours, does.

Our wet months are the early summer months; from May to August gives the average over 4 inches a month, and June over 5½ inches; all the other months have over 3, with the exception of January and February, which have a fall of between 2 and 3 inches.

The prevailing winds in our region of country are the south-easterly ones. From June to September south-east winds predominate considerably over all others; in May and October they are still the prevailing ones; and in the other months, from November to April, we find them only secondary to the westerly and north-westerly

winds. Storms are uncommon with us; they are observed more in winter than in summer, but generally only as the first indications of the great winter storms of our Atlantic coast, which they precede about twenty or twenty-four hours. Summer storms, in the form of tornadoes accompanied with thunder and lightning, are not rare, but are always of short duration and rarely of destructive power.

The average number of thunder-storms in the year is 44, which occur mainly between the end of April and the beginning of September; and June is the month in which they, as well as the heaviest rains, prevail.

The proportion of cloudiness is indicated by numbers from 0, entire clearness, to 10, complete cloudiness; so that 5 would designate a sky half-covered with clouds. The table shows that in the four months from November to February the sky is more than half, and the other eight months less than half, overclouded. July and August prove to be the months in which most clear weather prevails.

The meteorological table for 1866 indicates that in that year the barometrical observations proved a higher pressure of the atmosphere than usual, and that the highest maximum ever observed by me was attained in January. The mean temperature was 0.5 degrees lower than the average; January, February, March, May, and especially August and September, were cooler than the average, while the other months, especially April, July, and November, were warmer. The extreme temperatures, occurring in February and August, were less than the extremes of thirty years.

The relative humidity of last year was greater, especially in September, which was the most damp month of the year, while, on an average, December and January are more humid. The quantity of rain was also greater in last September than had been observed before in that month; the amount of the whole year nearly equaled the average quantity.

METEOROLOGICAL TABLE FOR 1866, ST. LOUIS, MO.—BY DR. GEO. ENGELMANN.

MONTHS.	BAROMETER, Reduced to Freezing Point.				THERMOMETER, (Fahrenheit.)				Evaporation.*	Force of Vapor.	Relative Humidity.	Quantity of Rain and Melted Snow, in inches.	PREVAILING WINDS.	Proportion of cloudiness.	No. of Thunder-storms.
	Mean.	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.							
January	29.690	30.510	28.974	1.536	31.8	55.5	-1.5	57.0	2.4	0.134	75.9	4.16	NW and SE, then SW.	5.5	2
February	29.736	30.236	29.108	1.128	32.6	69.0	-9.0	78.0	3.2	0.124	67.9	2.24	NW, then SE.	4.9	1
March	29.645	30.078	28.895	1.183	41.8	81.5	14.0	67.5	4.4	0.169	65.8	2.80	NW, then N, and SE.	5.7	1
April	29.467	-9.913	29.152	0.761	59.8	91.0	33.0	58.0	7.9	0.278	56.1	1.56	SE.	4.3	3
May	29.441	29.670	28.842	0.828	64.2	87.5	41.0	46.5	8.5	0.331	56.2	2.24	SE, then NW, and SW.	4.6	2
June	29.465	29.827	29.091	0.736	74.3	94.0	50.5	43.5	8.0	0.524	64.2	5.59	SE.	3.7	13
July	29.517	27.704	29.360	0.344	81.7	98.0	62.0	36.0	7.9	0.726	68.3	3.67	SE.	4.2	8
August	29.511	29.739	29.128	0.611	74.5	100.5	48.5	52.0	8.2	0.538	64.5	5.16	NE, then NW, and SE.	3.1	4
September	29.526	29.804	29.206	0.598	63.3	87.5	39.5	48.0	4.1	0.451	78.2	10.53	NW, next SE.	5.7	4
October	29.612	29.985	29.040	0.945	57.7	79.5	30.5	49.0	5.5	0.319	68.6	2.01	SE.	3.6	1
November	29.553	30.039	29.135	0.904	45.6	74.0	23.5	50.5	4.2	0.207	68.3	1.37	SE.	4.4	...
December	29.570	29.985	28.989	0.996	33.5	55.0	8.0	47.0	2.5	0.143	74.9	18.7	SE, and NW.	6.3	...
1866	29.561	30.510	28.842	1.668	55.1	100.5	-9.0	109.5	5.6	0.329	67.4	43.20	SE, next NW.	4.6	39

* Mean difference of dry and wet bulb Thermometers.

Results of the Meteorological Observations made at St. Louis within the years from 1836 *to* 1866.

BY DR. GEORGE ENGELMANN.

MONTHS.	BAROMETER, Reduced to Freezing Point.				THERMOMETER, (Fahrenheit.)				Evaporation.	Force of Vapor.	Relative Humidity.	Quantity of Rain and Melted Snow, in inches.	PREVAILING WINDS.	Proportion of Cloudiness.	Number of Thunderstorms.
	Mean.	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range							
January	29.619	30.510	28.634	18.76	32.4	72.0	-22.5	94.5	2.6	0.131	73.0	2.14	W, next SE.	5.4	0
February	29.589	30.479	28.659	1.820	35.3	81.0	-15.0	96.0	3.2	0.147	70.6	2.66	W, next SE.	5.2	1
March	29.537	30.305	28.516	1.789	44.4	86.0	0.0	86.0	5.2	0.175	60.6	3.81	W, next SE.	4.6	3
April	29.485	30.091	28.640	1.451	56.1	93.0	18.0	75.0	7.2	0.249	57.0	3.96	W, and SE.	4.8	5
May	29.459	29.940	28.611	1.329	66.3	97.0	29.0	68.0	8.2	0.377	59.6	4.94	SE, then W.	4.4	7
June	29.477	29.965	28.990	0.975	74.4	99.5	43.0	56.5	7.9	0.562	65.3	5.66	SE.	3.9	9
July	29.518	29.867	29.159	0.708	79.0	104.0	53.0	51.0	8.6	0.650	65.1	4.17	SE.	3.6	6
August	29.526	29.940	29.128	0.812	76.5	101.5	44.5	57.0	7.7	0.616	67.5	4.15	SE.	3.6	5
September	29.559	30.214	29.020	1.194	69.4	102.5	35.0	67.5	6.2	0.505	70.9	3.25	SE.	3.8	4
October	29.574	30.352	28.910	1.442	55.8	89.5	21.0	68.5	5.4	0.296	67.9	3.39	SE, then W.	4.0	2
November	29.570	30.381	28.724	1.657	43.4	81.5	-0.5	82.0	4.1	0.188	67.5	3.16	W, next SE.	5.4	1
December	29.607	30.296	28.518	1.778	33.8	74.5	-7.0	81.5	2.7	0.151	74.3	3.16	SE, then W.	5.2	1
Average	29.543	30.510	28.516	1.994	55.6	104.0	-22.5	126.5	5.7	0.337	66.6	44.45	SE, then W, after them NW, S, then SW.	4.5	44

METEOROLOGICAL OBSERVATIONS MADE IN 1861, IN ST. LOUIS.

BY A. WISLIZENUS, M.D., *St. Louis, Mo.*

The observations of *atmospheric electricity* are made in the central part of the city, at my residence, No. 91 South Fifth street, corner of Almond, at the hight of forty feet above the pavement, and with *Dellman's* collecting apparatus and electrometer. The quantity of atmospheric electricity is given in the degrees of that electrometer, from 1 to 90. Its quality, as exhibited by the instrument, is the opposite of atmospheric electricity; but to prevent mistakes I have changed the signs in the following tables. + and — represent, therefore, the real state of the atmospheric electricity.

The *winds* are recorded in eight points of the compass, and their force is estimated in figures from 1 to 10.

1. Very light breeze.
2. Gentle breeze.
3. Fresh breeze.
4. Strong wind.
5. High wind.
6. Gale.
7. Strong gale.
8. Violent gale.
9. Hurricane.
10. Most violent hurricane.

The *sky*, or the amount of cloudiness, is designated by figures from 0 to 10—10 being entire cloudiness, 5 half cloudiness, and 0 entire clearness.

The *kind of clouds* are entered, st. (stratus), cu. (cumulus), cir. (cirrus), nim. (nimbus), and cir. st., cu. st., cir. cu. (cirrostratus, cumulostratus, cirrocumulus), etc., etc.

The *relative humidity*, or the per centage of saturation of the air with vapor, is calculated from the difference of the dry and wet bulb thermometer by means of the Smithsonian tables; 100 indicating full saturation; 50 half saturation, etc.

Fog– 1 means slight fog.
" 2 common fog.
" 3 thick, dense fog.

We give Dr. Wislizenus' tables for the month of January, 1861, only; because to give them in detail for the whole year would occupy more space than seems expedient. This table for January will show the manner of keeping the table, and give some idea of the amount of labor involved.

JANUARY, 1861.

Date.	Hour.	Atmospheric Electricity.	Wind. Direction.	Wind. Force.	Sky.	Thermometer, Fahrenheit.	REMARKS.
1	7	+17	se.	2	0	22	hazy, moonshine, before sunrise.
	8	17	se.	2	0	23	after sunrise.
	9	25	se.	2	0	27	
	10½	30	s.	1	0	35	
	12	30	s.	1	0	39	
	2	13	se.	1	0	44	
	3	14	se.	1	0	45	
	4	11	se.	1	0	42	
	5½	11	se.	1	0	42	after sunset.
	7	11	se.	1	0	37	
	9	18	se.	1	0	34	stars brilliant.
	12	22	se.	1	0	31	" "
2	2½	14	se.	1	0	29	" "
	6	22	s.	1	5	27	fog 2.
	7¾	32	sw.	2	10	29	fog 3.
	9	32	sw.	2	10	32	fog 2.
	12	40	sw.	1	10	39	hazy.
	2	33	sw.	1	10	39	"
	4	23	sw.	1	10	38	" overcast, dark.
	6	32	sw.	1	10	37	"
	8	20	sw.	2	10	35	
	10	15	w.	3	0	29	sky starry.
3	8	2	nw.	3	10	29	overcast.
	12	9	w.	3	10	29	overcast, fog 1.
	2	17	w.	3	10	31	overcast.
	6	5	nw.	3	10	29	"
	9½	3	nw.	3	10	27	a few drops of rain; some snowing in the night.
4	7	27	nw.	3	9	14	
	9	32	nw.	3	8	16	some snow-flakes falling.
	12	25	sw.	2	2	23	
	2	10	w.	2	1	25	
	6	17	e.	3	2	22	
	10	27	e.	2	1	20	
5	7	18	se.	2	1	20	
	9	26	se.	3	0	26	
	12	23	se.	2	6	35	
	2	22	se.	2	7	37	
	6	5	se.	2	10	35	
	9	8	e.	3	10	35	
6	7¼	12	se.	2	1	36	
	9	20	s.	2	1	43	
	12	12	s.	2	2	53	
	3¼	9	s.	2	10	52	
	9	1	s.	1	10	47	high wind in the night.
7	7¼	9	nw.	3	10	36	
	9	12	nw.	3	10	36	
	12	18	nw.	3	10	37	
	2½	16	nw.	3	7	37	
	6	21	nw.	3	5	34	
	10½	30	nw.	2	0	30	
8	7¼	23	ne.	2	10	29	fog 1, white frost.
	12	17	nw.	3	10	35	
	3	14	ne.	3	10	34	hazy, overcast.
	6	14	ne.	2	10	33	
	9½	1	ne.	3	10	32	
9	7½	17	nw.	2	10	28	fog 1.
	9	28	nw.	2	10	28	"
	12	30	nw.	2	9	31	
	3	27	s.	2	5	35	sunshine.
	6	24	sw.	2	10	34	

JANUARY — *Continued.*

Date.	Hour.	Atmospheric Electricity.	Wind. Direction.	Wind. Force.	Sky.	Thermometer, Fahrenheit.	REMARKS.
	10	+16	sw.	3	0	30	
10	7¾	9	nw.	3	9	27	cu.
	9	12	nw.	4	0	26	
	12	19	w.	4	0	28	
	3	21	w.	3	0	30	
	6	12	se.	2	5	26	
	10	8	se.	2	10	26	snow-fall after midnight.
11	7¾	1	se.	2	10	31	
	9	8	se.	2	10	33	
	12	20	se.	2	4	42	
	3	14	sw.	2	5	47	
	6½	14	ne.	2	6	41	
	10	6	nw.	3	0	37	
12	7¼	23	se.	2	10	31	fog 1.
	9	28	se.	2	0	33	hazy.
	12	25	s.	2	0	42	
	2	19	s.	2	0	46	
	7	24	se.	1	0	40	fog 1.
	10	19	se.	1	0	37	
13	7¼	15	se.	2	5	35	
	9	18	se.	2	8	38	fog 1.
	12	6	se.	2	10	43	soon afterwards sprinkling rain.
	4	2	se.	2	10	40	drizzling rain.
	7	5	se.	2	10	35	
	10	1	se.	1	10	37	drizzling rain.
14	7¼	30	e.	1	10	40	fog 3.
	9	30	e.	1	10	42	fog 3.
	12½	30	e.	1	10	46	fog 2.
	3	7	nw.	1	10	44	hazy, dark.
	6	9	nw.	1	10	44	hazy.
	10	10	nw.	1	10	40	fog 2.
15	6	15	ne.	1	10	40	fog 2.
	9	20	ne.	1	10	40	fog 3.
	12	—45	w.	3	10	42	rain beginning a little before 12.
	3	+ 7	n.	3	10	43	drizzling rain.
	6¾	—55	n.	3	10	42	rain.
	10½	—30	n.	2	10	42	drizzling rain, snow-fall in the night.
16	7¼	+ 8	w.	3	10	35	some snowing between 8 and 9.
	9	18	w.	3	10	37	" " " 9 " 10.
	12	3	nw.	3	10	37	
	3½	14	w.	3	10	37	
	7	4	nw.	2	10	36	
	10	5	w.	2	10	33	
17	7½	15	s.	1	10	31	
	9	20	s.	1	10	33	fog 1.
	12	23	se.	3	10	34	hazy.
	3	16	se.	2	10	35	
	6	13	se.	2	10	33	snow-fall from 8 to 10.
	10	6	e.	3	10	33	
18	7½	11	sw.	3	2	37	
	9	17	sw.	4	0	37	
	12	15	sw.	4	1	39	
	3	11	sw.	4	0	41	
	6	13	sw.	4	0	36	
	10	8	w.	3	0	33	
19	7¼	6	w.	4	0	26	
	9	16	w.	4	0	28	
	12	15	w.	3	0	35	
	3	15	w.	3	0	38	
	6	18	w.	3	0	34	

JANUARY—*Continued.*

Date.	Hour.	Atmospheric Electricity.	Wind. Direction.	Wind. Force.	Sky.	Thermometer, Fahrenheit.	REMARKS.
	10	+33	w.	3	0	29	fog 1.
20	7¼	27	sw.	3	0	24	fog 1.
	9	30	sw.	2	0	26	fog 2.
	11	35	sw.	2	0	36	
	5½	23	ne.	2	0	38	fog 1.
	10	13	ne.	2	0	33	
21	7½	17	e.	2	0	27	fog 1.
	9	15	ne.	2	0	27	
	12	23	w.	3	0	31	
	3	20	nw.	3	0	33	
	6	15	nw.	3	0	30	
	9½	9	sw.	3	5	27	
22	7¼	2	ne.	2	10	23	fog 1.
	9	12	se.	2	0	28	
	12	20	se.	3	1	40	
	3	17	se.	3	0	44	
	6	9	se.	2	0	39	
	10	10	se.	2	0	38	
23	7½	15	e.	2	10	33	
	9	10	se.	3	10	37	
	12	18	se.	1	10	39	drizzling rain.
	3	22	se.	2	10	40	" "
	6	8	s.	1	10	38	
	10½	24	s.	1	10	35	drizzling rain, in the night high wind and
24	7¼	14	nw.	3	5	10	[considerable snow-fall.
	9	18	nw.	3	0	16	
	12	11	w.	3	0	22	
	3	17	sw.	4	0	26	
	7	23	sw.	4	0	19	
	10	19	w.	3	0	17	
25	7¼	37	se.	3	10	9	hazy, sun just setting.
	9	30	se.	3	0	18	
	12	25	se.	2	0	29	
	3	17	se.	2	0	32	
	6½	19	se.	2	0	26	moonshine.
	9	15	se.	2	0	24	"
26	7	23	se.	2	5	22	hazy.
	9	21	se.	2	6	30	cir. cu.
	12	35	s.	2	1	39	st.
	2½	32	s.	2	0	42	
	5	20	se.	2	0	41	sun just setting.
	7	17	se.	2	8	36	cu.
	10	16	se.	2	10	36	high wind in the night.
27	7¼	7	w.	4	0	18	sun just rising.
	9	14	w.	4	0	19	
	12	19	w.	3	0	28	
	3	16	w.	3	0	31	
	6	25	ne.	2	5	28	fog 1.
	10	20	e.	2	0	25	
28	7	15	se.	2	10	30	
	9	14	se.	2	5	36	
	12	16	s.	2	8	46	
	3	12	s.	2	10	50	
	6	20	nw.	3	8	45	fog 2.
	10	12	nw.	3	0	42	
29	7	25	nw.	3	1	30	hazy.
	9	19	nw.	3	0	31	
	12	20	w.	3	2	37	
	3	12	nw.	3	0	40	
	6	15	nw.	3	0	37	fog 1.

JANUARY—*Continued.*

Date.	Hour.	Atmospheric Electricity.	Wind. Direction.	Wind. Force.	Sky.	Thermometer, Fahrenheit.	REMARKS.
	9½	15	nw.	3	0	32	
30	7	15	nw.	4	0	10	hazy.
	9	17	nw.	4	0	8	
	12	17	w.	3	0	17	
	3	13	w.	3	0	18	
	6	15	nw.	3	2	17	
	10	9	nw.	2	10	19	
31	7	12	e.	3	10	23	
	9	2	se.	3	10	24	cu.
	12	11	se.	2	10	29	
	3	3	se.	3	10	29	overcast, dark.
	6	8	se.	2	10	28	
	10	3	se.	2	10	28	drizzling rain in the night.

Yearly Mean of Positive Electricity, of Temperature, and of Relative Humidity of the Atmosphere at the hours of 6, 9, 12, 3, 6, *and* 9, *from morning till night, based upon daily observation of those hours in* 1861, 1862, 1863, 1864, *and* 1865, *at St. Louis, Missouri.*

ELECTRICITY.

Year.	6 A. M.	9 A. M.	12 M.	3 P. M.	6 P. M.	9 P. M.
1861	8.5	9.9	9.0	7.7	8.5	6.8
1862	8.9	10.0	9.1	7.3	8.1	6.8
1863	10.5	10.6	10.0	7.5	9.1	7.4
1864	7.9	8.8	7.4	5.4	5.9	5.5
1865	6.4	7.1	6.0	5.3	5.4	3.8
Mean	8.4	9.3	8.3	6.6	7.4	6.1

TEMPERATURE.

1861	48.9°F.	54.9	61.6	63.6	59.3	54.3
1862	48.9	55.0	60.9	62·3	58.0	53.6
1863	47.5	53.6	59.7	61.0	57.2	52.2
1864	48.0	54.1	60.5	62.2	58.1	53.0
1865	50.4	55.8	61.8	63.3	59.3	54.7
Mean	48.7	54.7	60.9	62.5	58.4	53.6

RELATIVE HUMIDITY

1861	86.4	71.3	60.3	57.2	65.1	77.3
1862	85.3	70.6	60.0	57.5	67.6	78.0
1863	86.8	71.4	60.2	58.0	66.7	77.9
1864	83.9	69.3	57.7	55.0	64.0	74.8
1865	84.7	71.7	61.3	59.0	68.3	78.9
Mean	85.4	70.9	59.9	57.3	66.3	77.4

REMARKS.

The above tables contain a summary of my observations of atmospheric electricity for five years. They are based upon five daily observations, made with Dellman's instruments. As a result of these researches, I have found the following laws:

1. The positive electricity, floating generally in our atmosphere, exhibits a daily periodicity, by two maxima and two minima in twenty-four hours, a first maximum appearing about 9 A. M., a second about 6 P. M.; and a first minimum about 3 P. M. and a second about 9 P. M., which is continued till after midnight.

2. Besides this daily periodicity, there exists a monthly one. The far greater quantity of positive electricity appears in the colder half of the year, and the lesser in the warmer half.

3. There is possibly also a yearly periodicity of eleven years, following the same periodicity that exists between terrestrial and solar magnetism—between the deflection of the magnetic needle and the solar spots. The present period extends from 1859 to 1870, with maxima at these two end points and with a minimum in the middle, in 1865. The uncommonly-low mean of electricity in 1865, which cannot be accounted for by other meteorological phenomena, seems to favor this supposition; but observations must be continued for many more years to decide that point.

Atmospheric electricity is in medical works so often mentioned as a cause of health and disease, that one might suppose it was an agent thoroughly known. But of all the meteorological phenomena, there is, on the contrary, none so little understood and studied as atmospheric electricity. The reason of it is that while many have written and rewritten about the influence of atmospheric electricity, and ascribed almost every epidemic or unknown disease to that agency, very few have made regular and reliable observations long enough to warrant safe conclusions in regard to the regular or irregular action of electricity at certain periods.

YEARLY REPORT OF ATMOSPHERIC ELECTRICITY, TEMPERATURE, AND HUMIDITY, OF 1861, 1862, 1863, 1864, AND 1865.

By A. Wislizenus, M.D., *St. Louis, Mo.*

Monthly Mean of Positive Atmospheric Electricity in 1861, 1862, 1863, 1864, *and* 1865, *at St. Louis, Mo., based upon daily observations at* 6, 9, 12, 3, *and* 9 *o'clock, from morning till night.*

Year.	Jan.	Feb.	Mch.	April.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861.....	16.5	12.1	9.8	8.8	7.8	4.0	3.7	3.4	3.0	7.1	10.0	14.3	8.4
1862.....	12.1	16.0	9.4	10.6	7.5	3.0	2.2	2.3	3.0	7.7	12.6	13.9	8.4
1863.....	16.9	15.9	13.6	8.8	4.7	2.0	2.8	4.4	4.8	12.5	12.1	11.5	9.2
1864.....	15.8	11.3	11.0	8.5	5.1	4.0	2.3	0.9	1.8	5.4	6.6	9.0	6.8
1865.....	12.2	9.5	5.9	3.3	2.4	3.4	2.6	5.9	1.2	5.3	10.1	6.4	5.7
Mean....	14.7	13.0	9.9	8.0	5.5	3.3	2.7	3.4	2.8	7.6	10.3	11.0	7.7

Monthly Mean of Temperature and Relative Humidity in 1861, 1862, 1863, 1864, *and* 1865, *at St. Louis, Mo., based upon daily observations cotemporaneous with those of Atmospheric Electricity.*

TEMPERATURE.

Year.	Jan.	Feb	Mch.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861.....	32.2	40.4	44.8	58.1	64.1	76.9	77.5	78.6	69.1	57.9	46.0	39.7	57.1
1862.....	28.9	30.2	43.2	55.0	69.7	75.1	81.2	80.7	72.1	57.3	42.6	41.3	56.4
1863.....	36.8	35.7	43.6	57.4	65.5	71.9	77.2	77.5	69.2	48.0	43.7	35.9	55.2
1864.....	29.2	38.3	40.7	59.4	61.4	78.9	83.5	78.8	72.9	53.1	44.9	30.4	56.0
1865.....	28.1	38.4	46.7	56.8	68.8	80.7	77.7	78.1	77.8	58.8	48.0	30.8	57.5
Mean....	31.0	36.6	43.8	55.7	67.5	76.7	79.4	78.7	72.2	57.0	45.0	35.6	56.4

RELATIVE HUMIDITY.

1861.....	72.2	63.3	64.5	61.5	66.3	70.8	66.3	69.6	77.3	76.6	69.0	74.3	69.5
1862.....	85.3	73.9	70.8	67.0	57.3	67.0	66.8	64.3	74.2	67.2	69.5	74.6	69.8
1863.....	79.2	81.7	68.1	57.2	59.4	67.7	68.6	70.7	68.2	74.4	67.4	79.5	70.2
1864.....	75.6	62.7	70.0	69.8	56 4	61.5	62.8	69.0	64.1	67.9	74.2	75.5	67.4
1865.....	74.6	72.0	66.1	66.8	62.1	67.9	77.4	71.7	76.8	74.1	62.3	78.8	70.9
Mean....	77.4	70.7	67.9	64.5	60.3	67.0	68.4	69.1	72.1	72.0	68.5	76.5	69.6

Yearly Report of Atmospheric Electricity, Temperature, and Humidity, of 1861, 1862, 1863, *and* 1864. *By* A. WISLIZENUS, M.D., *St. Louis, Mo.*

Monthly Mean of Positive Atmospheric Electricity in 1861, 1862, 1863, *and* 1864, *at St. Louis, Mo., based upon daily observations at* 6, 9, 12, 3, 6, *and* 9 *o'clock, from morning till night.*

YEAR.	Jan.	Feb.	Mar.	April	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861.....	16.5	12.1	9.8	8.8	7.8	4.0	3.7	3.4	3.0	7.1	10.0	14.3	8.4
1862.....	12.1	16.0	9.4	10 6	7.5	3.0	2.2	2.3	3.0	7.7	12.6	13.9	8.4
1863.....	16.9	15.9	13.6	8.8	4.7	2.0	2.8	4.4	4.8	12.5	12.1	11.5	9.2
1864.....	15.8	11.3	11.0	8.5	5.1	4.0	2.3	0.9	1.8	5.4	6.6	9.0	6.8
Mean.....	15.3	13.8	10.9	9.2	6.3	3.2	2.7	2.7	3.1	8.2	10.3	12.2	8.2

Monthly Mean of Temperature and Relative Humidity in 1861, 1862, 1863, *and* 1864, *at St. Louis, Mo. based upon daily observations cotemporaneous with those of Atmospheric Electricity.*

TEMPERATURE.

YEAR.	Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861.....	32.2	40.4	44.8	58.1	64.1	76.9	77.5	78.6	69.1	57.9	46.6	39.7	57.1°F
1862.....	28.9	30.2	43.2	55.0	69.7	75.1	81.2	80.7	72.1	57.3	42.6	41.3	56.4
1863.....	36.8	35.7	43.6	57.4	65.5	71.9	77.2	77.5	69.2	48.0	43.7	35.9	55.2
1864.....	29.2	38.3	40.7	51.4	69.4	78.9	83.5	78.8	72.9	53.1	44.9	39.4	56.0
Mean.....	31.8	36.4	43.1	55.5	67.2	75.7	79.8	78.9	70.8	54.1	44.3	39.8	56.2

RELATIVE HUMIDITY.

1861.....	72.2	63.3	64.5	61.5	66.3	70.8	66.3	69.6	77.3	76.6	69.0	74.3	69.5
1862.....	85.3	78.9	70.8	67.0	57.3	67.0	66.8	64.3	74.2	67.2	69.5	74.6	69.8
1863.....	79.2	81.7	68.1	57.2	59.4	67.7	68.6	70.7	68.2	74.4	67.4	79.5	70.2
1864.....	75.6	62.7	70.0	69.8	56.4	61.5	62.8	69.0	64.1	67.9	74.2	75.5	67.4
Mean.....	78.1	70.4	68.3	63.9	59.8	66.7	66.1	68.4	70.9	71.5	70.0	76.0	69.2

Yearly Mean of Positive Electricity, of Temperature, and of Relative Humidity of the Atmosphere at the hours of 6, 9, 12, 3, 6, *and* 9, *from morning till night, based upon daily observations at those hours in* 1861, 1862, 1863, *and* 1864, *at St. Louis, Mo.*

ELECTRICITY.

YEAR.	6 A.M.	9 A.M.	12 M.	3 P.M.	6 P.M.	9 P.M.
1861.....	8.5	9.9	9.0	7.7	8.5	6.8
1862.....	8.9	10.0	9.1	7.3	8.1	6.8
1863.....	10.5	10.6	10.0	7.5	9.1	7.4
1864.....	7.9	8.8	7.4	5.4	5.9	5.5
Mean.....	8.9	9.8	8.9	7.0	7.9	6.6

TEMPERATURE.

1861.....	48.9°F	54.9	61.6	63.6	59.8	54.3
1862.....	48.9	55.0	60.9	62.3	58.0	53.6
1863.....	47.5	53.6	59.7	61.0	57.2	52.2
1864.....	48.0	54.1	60.5	62.2	58.1	53.0
Mean.....	48.3	54.4	60.7	62.3	58.1	53.3

RELATIVE HUMIDITY.

1861.....	86.4	71.3	60.3	57.2	65.1	77.3
1862.....	85.3	70.6	60.0	57.5	67.6	78.0
1863.....	86.8	71.4	60.2	58.0	66.7	77.9
1864.....	83.9	69.3	57.7	55.0	64.0	74.8
Mean.....	85.6	70.6	59.5	56.9	65.8	77.0

METEOROLOGICAL OBSERVATIONS MADE DURING THE YEARS 1865 AND 1866, AT WYACONDA PRAIRIE, COUNTY OF LEWIS, MISSOURI, LATITUDE 40° 12′, LONGITUDE 91° 37′. BY GEO. P. RAY.

1865.	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.				PREVAILING WIND.	WINDS.			FORCE OF WIND.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Highest Temperature.	Lowest Temperature.	Am't of Rain in gauge, in inches.	Depth of Snow, in inches.	7 A.M. Amount of Cloudiness	2 P.M. Amount of Cloudiness	9 P.M. Amount of Cloudiness	9 P.M. Mean.	DIRECTION.	7 A.M. Force.	2 P.M. Force.	9 P.M. Force.	Mean.
January	13.80	31.00	24.84	21.88	20th, 53°	26th, 6°	0	1.35	5.6	5.2	4.5	5.1	NW.	1.5	2.1	1.5	1.7
February	26.68	38.15	32.07	32.23	21st, 56°	9th, 9°	2.86	3.	6.7	6.2	6.1	6.3	NW.	1.4	1.8	1.3	1.5
March	30.29	46.13	35.00	37.16	19th, 75°	9th, 2°	6.00	.25	5.7	5.2	5.9	5.6	S.	2.2	3.1	2.2	2.5
April	43.97	60.50	48.33	51.01	19th, 83°	8th, 26°	8.88	.10	5.6	6.5	6.2	6.1	NW.	2.1	2.4	1.5	2.
May	56.79	75.18	65.67	63.01	4th, 93°	2d, 42°	.71	0	5.5	5.7	4.7	5.3	NW.	1.6	2.4	1.3	1.8
June	69.87	85.50	69.07	74.81	6th, 96°	20th, 56°	5.01	0	.....	.....	....	.....	SW.	1.5	2.3	1.6	1.8
July	69.03	81.26	68.00	72.75	5th, 97°	15th, 56°	8.54	0	.....	.....	.....	.....	NW.	1.	1.8	1.	2.3
August	70.80	85.90	75.16	78.35	9th, 97°	24th, 57°	2.06	0	4.9	5.3	3.4	4.2	S.	1.2	2.	.5	1.2
September	66.66	84.52	70.55	74.00	2d, 97°	19th, 51°	7.42	0	5.8	5.4	3.1	4.8	S.	1.1	1.9	.7	1.2
October	50.36	64.03	54.23	55.78	7th, 87°	29th, 21°	3.96	.10	4.2	4.	3.9	4.	SE.	1.	2.	1.1	1.4
November	30.53	52.03	39.67	40.62	16th, 69°	5th, 19°	0	0	2.	2.6	2.1	2.2	SW.	.9	2.1	.8	1.3
December	15.77	29.67	21.93	22.39	1st, 50°	21st, 19°	.59	4 25	4.8	4.	3.4	4.1	NW.	1.4	2.3	1.3	1.7
Mean	45.38	61.15	50.04	52.19	.....	.....	46.24	9.05	.....	.....	.....	4.81	.....	.....	.....	.....	1.6
1866.																	
January	19.67	31.29	24.23	25.10	29th, 52°	20th, 10°	2.25	12.	5.7	6.7	5.7	6.	NW.	1.6	2.1	1.5	1.7
February	16.37	32.77	23.41	23.97	27th, 60°	15th, 20°	.37	4.25	5.5	5.1	4.4	5.	NW.	1.7	2.	1.1	1.6
March	29.51	41.78	33.50	34.95	1st, 69°	17th, 8°	1.76	3.75	7.2	6.7	6.6	6.8	NW.	1.5	2.1	1.3	1.6
April	.....	.....	.....	.....	27th, 88°	6th, 23°	4.09	0	5.	5.4	4.5	5.	SE.	1.7	2.7	1.6	2.
May	.....	.....	.....	.....	.....	.....	2.10	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	1.87	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	5.67	0	4.2	5.6	3.7	4.5	SW.	1.3	2.	.7	1.3
August	.....	.....	.....	.....	.....	.....	2.13	0	4.	4.3	3.5	3.9	SW.	1.1	2.5	.5	1.4
September	.....	.....	.....	.....	.....	.....	7.55	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	2.15	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.53	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

CASUAL PHENOMENA.

1865.

January—7th, large lunar halo; 24th, 26th, and 28th, parhelia at sunrise.

February—26th, Mississippi river open at Canton; 28th, blackbirds first seen this spring; 29th, prairie-chickens crowing every fine morning since the 24th.

March—5th, robins returned; 8th, meadow-larks singing; 19th, frogs croaking; 20th, large musquitoes very thick.

April—1st, martins returned; 4th, 5th, 6th, 15th. 17th, 18th, 19th, 25th, and 29th, thunder-storms; 19th, peaches just blossoming; 20th, light snow.

May—5th, forest trees all leaving out; 7th, whippoorwills singing; 11th, light frost, last of season; 21st and 23d, thunder-storms.

June—8th, 17th, 21st, and 28th, thunder-storms.

July—1st, 8th, 10th, 15th, 18th, 20th, 21st, 22d, 23d, 24th, and 25th, thunder-storms.

August—6th, at 7¾ P. M., saw a large meteor in the south, moving west.

September—21st and 29th, wild geese and whooping cranes flying south.

October—16th, 19th, and 20th, light frosts, no damage done; 28th and 29th, killing frosts.

November—4th, 5th, 7th, 8th, and 24th, very smoky.

December—1st, 2d, very smoky; 7th to 10th, sleighing three days; 21st to 24th, sleighing three days; 20th, parhelia at sunset.

1866.

January—10th, ground covered with ice nearly one inch thick; 15th, thunder-storm; 31st, good sleighing since the 19th.

February—15th, snow-drifts nearly as high as the fences; 20th, sleighing all gone; 27th, robins and bluebirds singing, prairie-chickens crowing; 27th, wild ducks returned; 28th, killdeers returned; temperature of well twenty feet deep, 47°.

March—1st, meadow-larks singing, frogs croaking; 11th, thunder-storm; 30th, martins returned, flies about.

April—20th, a few strawberries in bloom, willows, lilacs, etc., just leaving out; 21st, whippoorwills first heard; 9th, last hard frost; 26th, plum-trees in full bloom; no peach-blossoms this year.

May—13th and 28th, light frosts.

July—Thunder-storms on the 6th, 20th, and 23d; temperature of well twenty feet deep, 54°.

August—9th, Aurora 9 P. M.; thunder-storms, 13th and 26th; 24th, light frost, no harm done; temperature of well, 52°.

September—14th, wild geese flying south; 21st, hard frost.

December—Sleighing from the 16th to the 21st, six days.

WILLIAMSBURG, *Callaway County, Mo., December* 25, 1866.

Dr. L. D. MORSE—*Dear Sir:* I would be very glad to comply with your request, but I much fear I shall not be able to contribute anything that would be available for the purpose you have in view, for the reason that the few notes that I have kept are mostly thermometrical, and are too imperfect and limited to be valuable. These notes were not regularly kept—only at intervals; they were merely kept for my own satisfaction. A thought of their ever being useful to any one never occurred to me, otherwise I should have given the subject more attention. I will, however, show my willingness to comply by sending you such a report as I can glean from my diary, whether it be apposite to your desires or not; and it may be that you can *extract* something from it. A meteorological report in its fullest sense would require the indications of the barometer, hygrometer, and anemometer (instruments that I have not), in addition to the thermometer.

1851.

April 5. Snowed considerably, notwithstanding fruit trees are in full bloom.
" 8. Ground frozen.
" 29. Considerable snow-storm; strong gale from the north.

1852.

April 17. Frequent gusts of hail.
" 22. Strong, cold wind from the north, and has been for several days.
May 3. Heavy fall of rain, which caused a greater rise in the creeks than for years previous.
" 15. Flood-gates of heaven all open again.
" 19. Slight frost.
" 20. Quite cold, with a severe, biting frost; hickory leaves very much blackened in many places.
" 24. There has been rain every day or two for the last three weeks.

1853.

May 1. Rained—the first for five or six weeks.
" 5. Floods of rain, as might be expected after so much dry weather.
" 10. Frosted.
" 17. Thermometer 80° at 3 o'clock P. M.
" 30. Morning cool; thermometer 48° at 4 o'clock A. M.
" 31. Thermometer 82° at 3 o'clock.
June 1. Thermometer 88° at 3 o'clock.
" 15. Weather hot, sultry. This makes seven days that the mercury has stood 90° at noon.
" 21. Thermometer 94° at noon.
August 11. Thermometer 95° at noon; 90° at 5 o'clock.
Sept. 15. Frosted.
Nov. 21. No rain for two months.

1854.

Jan'y 16. Heavy fall of snow.
" 18. Thermometer at zero.
" 21. Thermometer 8° below zero.
" 31. Immoderately warm for the season; thermometer at 60°.
Feb'y 1. Still warmer; thermometer 70° at 3 o'clock P. M.
March 1. Raining torrents; first rain for several months.
April 23. Frost.
May 1. Up to this time spring has been unusually wet.
July 3. For the last two weeks the weather has been excessively warm and dry, thermometer ranging daily from 75° at 4 o'clock A. M. to 97° at 3 o'clock P. M.

July 6. Had refreshing showers.
" 17. Thermometer at blood-heat (98°).
" 19. Thermometer 99°.
" 28. One of the hottest days I ever experienced; thermometer 102°; suspended in the open air, where the sun strikes it fairly, 130° at noon.
August 14. Very dry, no rain for weeks; even the grateful dews fail to reach us. The thirsty earth is dried until it is perfectly destitute of moisture, and gapes in large cracks and fissures. Pastures are brown and parched, and fire, where it gets out, runs wildly over woods, prairies, and grass-lands, as in late autumn. Water is exceedingly scarce, and has failed where it was never known to fail before; and to add to the general distress and depression of the times, the weather is excessively hot, the thermometer ranging from 90° to 102° in the heat of the day. So high a temperature for so long a time, and so severe a drought, were never known in this section.
Sept'r 12. After three months of drought, the refreshing rain has reached us again.
" 15. First frost—slight.
Nov'r 10. First snow; it has been remarkably warm up to this time.
" 26. Another slight fall of snow. Pastures have been very fine up to this time, in consequence of the mildness of the weather; and very opportune it is, too, following the ruinous drought.

1855.

Jan'y 21. Most unprecedented snow-storms. The most terrible day that I ever witnessed. It commenced snowing last evening, and snowed steadily all night long. The air was so still that one could almost hear the snow as it silently fell to the ground, till the after part of the night, when the wind rose, and continually freshened till day-light, by which time it was a roaring hurricane, filling the atmosphere with driving snow that was perfectly blinding, rendering objects almost as obscure as of a night of Egyptian darkness; and every effort at traveling was futile. Those attempting it were bewildered and lost where they were familiar with every surrounding object. Where there were no objects on which to effect lodgment, the ground was swept bare, the snow drifting in hollows and along fences till it was many feet deep.
April 19. Terrible hail-storm; many of the stones two-thirds as large as a goose-egg, and burying themselves two inches or more in the fresh-plowed ground as they fell.
May 12. Killing frost.
June 6. Heaviest fall of rain for two years.
July 10. Another terrible hail-storm, that carried desolation in its track, but fortunately confined itself to a very narrow strip of country.
" 11. A great flood of rain fell last night.
" 13. Five nights in succession has it rained. So much water has not fallen in the same space of time for years.
" 18. Thermometer 93°.
" 19. Thermometer 94°; rained.
August 14. Heaviest fall of rain ever known in a night in this vicinity; streams all overflowed.
" 17. For eight days we have had uninterrupted rainy weather.
" 21. Rainy.
Sept'r 5. Having much wet weather.
" 30. Frost this morning.
Oct'r 5. Spitting snow.

October 19. Since the 5th inst., weather fair and pleasant.
" 20. Rained.
" 21. Spitting snow again.
" 22. Raining.
" 23. Snowing.
" 24. Still snowing; melts as it falls.
" 25. White hoar-frost; thermometer 24°.

Dec'r 9. Unusually mild weather to date. Stock have done well on the common till now.
" 23. Snowed last night. Ther. at zero; moderated 5° during the day.
" 24. Thermometer 2° below 0 at daylight. Snowed all day; moderated 2°.
" 25. Thermometer 3° below zero.
26. Thermometer 11° below zero.
30. Thermometer 12° below zero; good sleighing for the week past.

1856.

Jan'y 8. Thermometer 22° below 0; moderated 22°.
" 17. Mildest day for 26 days; thermometer 50° at 3 o'clock. This is said to be the coldest spell of weather within 24 years; 24 years ago the snow was 18 inches deep, and lay on the ground 53 days.
" 24. Thermometer 40°.
" 26. Driving snow-storm from the north-east.
" 30. Thermometer 5° below zero.
" 31. Thermometer 38°; thawing freely.

Feb'y 3. Thermometer 17° below 0; moderated 17°.
" 4. " 22° " 0; " 38°.
" 5. " 8° " 0.
" 6. " 20°; severe snow-storm from the north-east. The addition to the snow has been about six inches, making the whole depth of snow at this date a foot or more, which is the deepest snow that has fallen for many winters.
" 7. Thermometer 26°.
" 12. Another snow-storm from the north-east. The snow is from 15 to 20 inches in the woods where it has not been disturbed by the wind, the average being perhaps 18 inches.
" 22. After an extraordinary cold term of sixty days, the weather has materially moderated. The severity and length of time it has remained cold has not been experienced in the last 25 years. During the last 60 days the temperature has rarely been mild enough to cause the slightest thaw. Long will this winter be memorable for its severity and quantity of snow.
" 27. Snowing.
" 28. Snowing.
" 29. Snowing. The 69th day that the ground has been covered with snow, and 60 days in which there has been good sleighing.

March 10. Ground begins to show bare where well exposed to the sun.
" 12. A fall of three inches of snow.
" 15. Snowing.
" 19. March-like, the wind doth blow. Some remains yet of the winter snows.
" 20. The melting of the snow and the thawing of the ground make bottomless roads.
" 30. Thunder, accompanied with snow.

April 15. Severe gale of wind, with rain, which leveled the fences to the ground.
" 26. Heavy fall of rain.
" 29. Another drenching rain.

May 20. For a month there has been one rain after another, keeping the ground very wet.
" 21. Thermometer 90° 3 o'clock P.M.
" 28. " 55° at sunrise.
" 29. " 60° " 61° at sunset.
" 30. " 48° " 70° "

June 14. Thermometer 50°.
" 23. " 94°; suffering greatly for rain.
" 24. " 93°.
" 25. " 96°.
" 26. " 94°.
" 27. " 96°.
" 28. " 94°.

July 3. Had a copious rain.
" 4. Thermometer 90°.
" 27. Another fine rain; the thermometer has been daily from 90° to 95°.
" 29. Thermometer 94°.

August 1. Thermometer 92°.
" 10. Raining.
" 11. Raining.
" 12. Raining.
" 18. Heavy rain last night.

Sept'r 1. Thermometer 75°.
" 9. " 87°.
" 16. " 87°.
" 22. White frost.
" 23. Killing frost.
" 24. Killing frost.

October 4. Thermometer 82°.
" 5. " 80°.
" 15. " 26°.
" 16. " 27°.
" 17. " 27°.
" 20. " 78° at 2 o'clock P.M.
" 21. " 83° " "
" 24. Copious rain.

Nov'r 4. Thermometer 28°.
" 5. " 25°.
" 7. " 60° at daylight; 32° at noon, and sleeting; 28° towards night, and snowing.
" 8. Thermometer 20°.
" 9. " 17°.
" 18. " 16°; cold and frosty.
" 20. Heavy fall of rain.
" 28. Soaking rain.

Dec'r 2. Soaking rain.
" 3. Thermometer 14°; driving wind and snow.
" 4. " 8°.
" 5. " 10°.
" 6. " 5°.
" 10. Ceaseless night's rain.
" 11. 1½ inches snow this morning.
" 13. Heavy fall of rain; turned to sleet, covering everything with ice. In the afternoon rained and melted sleet off.

Nov'r 14. Thermometer 12°.
" 15. " 13°.
" 16. " 18°.
" 18. " 52°.
" 20. " 12°.
" 21. " 12°.
" 22. " ¼° below 0.
" 26. Steady, pouring rain.
" 27. Turned suddenly cold, with a violent wind blowing.

1857.

Jan'ry 2. Considerable fall of snow.
" 17. For twenty-one days the thermometer has ranged from 20° to 8° below 0; nearest the latter point mostly.
" 18. Thermometer 20° below 0; moderated 26°.
" 19. Thermometer 9° below 0; moderated 34°.
" 21. Thermometer 2° below 0.
" 22. Thermometer 2° below 0; moderated 10°.
" 24. Three inches fall of snow.
" 26. After a month's hard-freezing weather, indications of a general thaw; thermometer 84°.
" 27. Indications false; no general thaw; sudden veering of the wind to the north-west, and ground hard-frozen.
" 28. Thermometer 12°, with a fair sky and frosty earth.
" 29. Weather mild.

Feb'ry 1. Three inches snow.
" 3. Thermometer 66°.
" 4. Turned cold last night; by noon moderated; afternoon rained.
" 7. Unremitting rain.
" 8. Thermometer 10°.
" 10. Thermometer 0.
" 12. Warm, windy weather, as it frequently is in March.
" 15. Heavy rains.
" 17. Thermometer 60° to 70° for several days; mud fabulously deep.
" 18. Rain and sleet.
" 24. Frequent and abundant rains for some time.
" 28. Not a cloud to be seen in all the sky.

March 2. Thermometer 14°.
" 9. Thermometer 10°.

April 5. Quite a snow this morning.
" 6. Frozen hard; thermometer 18°.
" 18. Snowed; thermometer 25°, of mornings, for some days.
" 19. Thermometer 22°.
" 23. Ground frozen for the last several mornings.

May 8. Thermometer 86° at 3 o'clock.
" 9. " 87° "
" 11. " 35° at daylight.
" 12. " 34° "
" 13. " 60° "
" 14. " 48° "
" 15. " 50° "
" 16. " 44° "
" 17. " 50° "
" 18. " 40° "
" 19. " 42° "

May 20. Thermometer 40° at daylight; slight frost.
" 21. " 50° "
" 22. " 46° " 82° at noon; the prevailing wind has been from the north all the spring.
" 23. Wind changed to the south.
June 8. Thermometer 88° at 3 o'clock.
" 10. " 88° "
" 18. " 54° at sunrise, 58° at noon.
" 29. " 88°, in heat of the day, for a week; very dry.
" 30. Tame showers of rain.
July 1. Thermometer 56° morning.
" 2. " 58° "
" 15. " 96° P.M.
" 18. " 98° P.M.; very dry.
" 20. Tremendous washing rain, accompanied with wind.
Sept. 20. First killing frost; no unusual variations in the weather for the last two months.
Nov. 19. First snow.
" 22. Snow fell to the depth of four or five inches.
" 24. Thermometer 6°.
" 25. " 5°.
" 26. " 8°.

1858.

Feb. 1. Snowing; the weather has been unusually mild up to this time, save the "cold term" in November.
" 5. Snowing.
" 9. Rained, hailed, sleeted, and snowed.
" 10. Thermometer at zero.
" 11. " 4°.
" 12. Snowing.
" 13. Snow five or six inches deep.
" 15. Thermometer 2°.
" 16. " 15°.
" 20. " 18°, standing at that point all the forenoon, and then rapidly falling until night.
" 22. Thermometer 2° below zero.
" 23. " 4° "
" 25. " 44° at 3 o'clock P.M.
" 28. Snowed and turned cold; thermometer 18°.
March 1. Thermometer 10°.
" 2. " 18°.
" 3. " 14°.
" 25. " 70°.
" 31. Rainy day, though there was frost this morning.
April 2. Thermometer 80°, and has ranged from 60° to 70° for several days.
" 3. " 81°.
" 6. " 32° morning.
" 7. " 42° "
" 8. Rained last night, and the wind blows fiercely to-day; thermometer 60° morning, 75° noon, and 50° late P. M.
" 9. Hard to tell which is the most variable, the wind or the temperature; the wind to-day has blown from every conceivable point of the compass ("boxed" it), and the thermometer has in the last few days ranged 32° to 80°; to-day it was 44° morning, 80° noon, 60° night.

April 10. Thermometer 50° morning, 70° noon.
" 11. Hard rain; weather oscillates from warm to cold and from cold to warm.
" 13. Thermometer 35° morning, and the snow driving fiercely before a driving wind; 40° at noon.
" 14. Thermometer 38° morning, 52° at 9 o'clock P.M. Eight years ago to-day snow fell to the depth of four or five inches.
" 15. Thermometer 45° morning.
" 17. " 45° "
" 19. Great flood of rain last night.
" 20. Rain and hail.
" 22. Thermometer 50° at night.
" 23. " 30° morning.
" 24. " 38° "
" 25. " 38° "
" 26. " 31° " snow last night; frost this morning.
" 27. " 39° "
" 28. " 50° " 80° at 3 o'clock P.M.; raining.
" 29. " 60° " 80° at noon.
" 30. " 66° " 76° " 74° at night.

May 1. Thermometer 60° morning; raining.
" 2. " 40° " cold north-east rain.
" 3. " 55° " rain.
" 4. " 50° " 54° at noon; still raining.
" 5. " 50° " propitious weather for aquatic animals, fowls, and reptiles, for there yet is rain.
" 6. Thermometer 50° morning.
" 8. More rain.
" 9. Cold north wind.
" 10. Thermometer 50° morning, and still rains.
" 11. " 45° "
" 12. " 40° " 72° at noon.
" 13. " 60° " 85° "
" 14. " 60° " 80° " 60° at night; rain from north.
" 15. " 50° " cold rain from the north.
" 16. " 45° " cold wind from the east.
" 17. " 50° all day long, with cold rain.
" 18. " 38° morning; frosted.
" 19. " 50° " 70° at noon, 60° at night.
" 20. " 39° " frost.
" 21. " 50° " raining, as *usual*.
" 22. " 50° " cold rain.
" 23. " 85° at 1 o'clock; still raining.
" 24. More rain.
" 25. Still raining; hail-storm.
" 26. Sun arose clear.
" 28. More rain.
" 29. Thermometer 62° morning, 85° at 3 o'clock.
" 30. " 68° " 85° at noon; raining.
" 31. " 60° " 82° " "

June 1. Thermometer 54° morning, 78° at noon.
" 2. Another hard rain.
" 3. Thermometer 68° morning.
" 4. Raining.
" 5. More rain.
" 6. Thermometer 60° morning; clear day.

June 7. Thermometer 60° morning; 82° at noon.
" 8. " 86° at noon.
" 9. Copious rain.
" 10. More rain.
" 11. " " thermometer 55° morning.
" 12. " " " 55° "
" 13. " " " 55° "
" 14. Thermometer 50° morning.
" 15. " 60° "
" 16. Weather *melting down;* thermometer 87° at noon.
" 17. Thermometer 87° at noon.
" 18. " 85° "
" 19. Rained.
" 20. More rain; thermometer 80° at noon.
" 21. Thermometer 88° at noon.
" 22. " 90° "
" 24. " 90° " rain.
" 25. Hard rain.
" 28. Thermometer 91° at noon; raining.

July 1. Thermometer 92° at noon.
" 9. Rain.
" 11. Another rain.
" 16. Tremendous fall of rain.
" 18. Another hard rain.
" 21. Thermometer 90° at noon daily.
" 22. A day of rain, continuously.
" 28. More rain.
" 31. Thermometer 93° at 3 o'clock.

August 4. Thermometer 92° at 3 o'clock.
" 5. " 92½° "
" 6. " 90° "
" 8. " 95° "
" 14. " 93° " daily.
" 23. " 50° morning; needing rain.
" 26. Fine showers.
" 27. Hard thunder-shower, with wind and hail.
" 30. Thermometer 48°.

Sept'r 14. Rained.

October 5. The thermometer for a few days past rose to 90°, or thereabout.
" 8. First killing frost.
" 28. Been raining for a week.

Nov'r 3. "Nor'-easter" storm.
" 6. This is the fourteenth day that the sun has been totally obscured.
" 9. First snow.
" 10. Thermometer 32° morning; regular hard day's snow.
" 11. Snow all melted and gone.
" 13. Twenty-one successive cloudy days.
" 15. Thermometer 18° morning.
" 18. " 18° "
" 20. Snow four inches deep.
" 26. Rainy.

Dec'r 3. Sleeted the day out.
" 4. Ditto.
" 8. Thermometer 5° morning.

Dec'r 12. Sleet melted off, after having done much damage to timber.
" 13. Sleeting again, accompanied with thunder and lightning.
" 30. Hard rain, " " " "

1859.

Jan'y 6. Severe snow-storm.
" 7. Thermometer 2° below 0.
" 8. " 5°.
" 9. " 20°.
" 10. " 15°.
" 11. " 32°.
" 22. " 3° below 0.

Feb'y 4. Thermometer 4°.
" 5. " 26°.
" 6. " 4°.
" 9. " 10°.
" 10. " 3°.
" 11. Snowed.
" 13. Thermometer 4°; ice six inches thick.
" 15. " 60° P.M.
" 17. Much rain last night; streams past fording.
" 19. Thermometer 80° at 2½ o'clock; five hours later 40°.

March 3. Violent wind-storm and rain from the south, leveling fences running east and west.
" 4. Another similar storm from the west, "making up" with fences running north and south.
" 6. More rain.
" 7. And still it rains.
" 11. Blustering day, with snow.
" 14. Ditto, with fences tumbling.
" 15. Thermometer 28° morning.
" 17. Rained all day, and turned snow at evening.
" 18. Two or three inches snow this morning.
" 19. Ground frozen hard.
" 20. Rained.
" 28. Cold rain.
" 29. Slight fall of snow.

April 3. Ground frozen.
" 4. Thermometer 25° morning.
" 5. " 26° "
" 6. Ground frozen; hoar frost.
" 9. Thermometer 80° P.M.
" 10. Rain.
" 13. More rain.
" 14. Ground frozen.
" 16. Thermometer 30° morning.
" 17. Wind from north-west, and snowing.
" 19. White frost.
" 20. Thermometer 78° P.M.
" 21. Cold north rain.
" 26. Perfect deluge of rain.

May 2. Rained.
" 3. Heavy rain.
" 8. Thermometer 78° P. M.

May 9. Thermometer 81° P. M.; wind north.
" 12. " 81° " shower.
" 13. Rained throughout the day.
" 14. More rain.
" 15. Raining yet.
" 17. More rain.
" 18. Thundering and threatening.
" 27. Thermometer 48° morning.
" 28. " 48° "
" 30. More rain.

June 5. Thermometer 45° morning.
" 12. Warm rain.
" 13. More rain.
" 18. Having more rain.
" 19. Another hard rain.
" 23. Hail-storm and heavy rain.
" 25. Another hard rain.

July 4. Thermometer 90° P. M. for a week.
" 5. " 60° morning.
" 6. " 50° "
" 11. " 90° P. M.
" 14. " 95° at noon, 90° at 5 o'clock.
" 15. " 96° " 98° at 1 o'clock.
" 16. " 93° P. M.
" 17. " 96° P. M.
" 21. " 90° to 95° daily P. M.
" 22. " 60° morning.
" 23 " 60° "
" 26. Regular, gentle rain.
" 27. Thermometer 60° morning.
" 28. " 58° "

August 13. Had shower.
" 15. Thermometer 90° P. M. daily for two weeks.
" 23. " 57° morning.
" 25. Rain.
" 27. Hard rain to-day.

October 6. First frost.
" 9. Thermometer 30° morning; hard, killing frost.
" 18. Another hard frost.
" 27. Thermometer 26° morning; hard, killing frost.
" 29. " 32° " moderated 2°.
" 30. " 22°. "

Nov'r 11. Thermometer 65° P. M.
" 12. " 12° morning; snowing.
" 20. Rained all day.

Dec'r 1. Thermometer 35° morning.
" 2. " 5° " snowed.
" 6. " 2° below 0; wind blowing furiously; more snow.
" 8. " 7° " 0.
" 19. " 2° " 0.
" 22. " 5° " 0.
" 31. " 2° " 0.

1860.

Jan'y 1. Thermometer 11° below 0.
" 20. Uniformly cold.
" 26. Quite warm.
Feb'y 1. Thermometer 4° below 0; sudden change.
" 5. Slight rain, much needed; but little falling weather thus far during the winter.
" 14. Snow falling.
" 17. Rain and sleet.
" 21. Another rain.
" 22. Snow.
" 23. More snow.
" 28. Spring-like weather.
March 7. Warm as summer.
" 26. Cold and snowing.
" 31. Had a good, soaking rain.
April 26. Thermometer 25° morning; the most flattering fruit prospect irretrievably ruined.
" 27. Another hard frost and freeze.
" 28. More frost.
May 10. Frosted last night.
" 11. Thermometer 90° P. M.
" 19. Slight frost.
" 27. Thermometer 95° P. M.
" 28. Copious shower.
June 30. Nice rain.
July 2. Another rain.
" 5 Heavy rain.
" 18. Thermometer 98° P. M.; excessively dry.
" 13. " 100° "
" 20. " 102° "
" 21. " 104° "
August 11. Weather varies from hot to cool; thermometer 48° morning.
" 17. Weather alternates to hot; very dry; thermometer 98° P. M.
Sept'r 7. Still excessively hot and dry.
October 12. Killing frost; thermometer 28° morning.
Nov'r 1. Snowed all day.
" 22. Snowed all day.
" 23. Snow three inches deep.
" 24. Thermometer at zero.
" 25. " "

1861.

April 10. Excessive rains for the last two weeks.
" 30. Thermometer 43° morning; frosted.
May 10. Rained.
" 12. Rained three nights in succession.
June 10. Thermometer 85° to 90° P. M. daily.
August 10. Weather hot and dry; for the last two weeks the thermometer has ranged from 90° to 98° P. M. daily.
" 22. Had a refreshing rain.
Sept'r 28. Killing frost.
Nov'r 22. Wintry; wind blowing to a gale.
" 23. Thermometer 25° morning. The autumn has been fine and pleasant.
Dec'r 1. Weather sharp and frosty.
" 2. Snowed to the depth of three inches.
" 23. Another snow.

1862.

Jan'y 14. Thermometer 2° below 0.
" 15. " 1° " 0.
April 25. Hard frost.
" 26. Slight frost.
" 29. Frosted.
June 9. No rain save light showers for seven weeks.
" 17. Fine, refreshing rain—first in eight weeks.
" 24. Heavy rain.
July 21. Very warm and wet.
October 25. First snow, one inch deep.
" 30. Snowed.
Dec'r 31. Thermometer 10° morning.

1863.

Jan'y 19. Snowed.
Feb'y 3. Thermometer 5° below 0; snowing.
" 4. " 15° morning; snowed all day.
" 5. " 10° " snow six inches deep.
" 6. " 0.
" 21. Another snowy day.
" 22. Snow four or five inches deep.
March 4. Been snowing for three days, and has been alternating from snow to rain almost daily for a month; mud almost interminable.
" 7. Another snow, four inches deep.
" 11. Snowing.
June 2. Getting very dry.
" 9. Had several fine rains in the last few days, which are the first of any consequence for three months.
" 29. Had a fine rain.
Sept'r 1. Had several slight frosts during the past week; thermometer 45° to 50° of mornings.
October 22. Snowed all day, four or five inches deep.
" 23. Thermometer 20° morning.
" 24. " 20° "
" 30. " 30° " snowed.
" 31. " 20° "
Nov'r 28. Suddenly turned and sleeted.
" 29. Thermometer 40° morning.
Dec'r 12. Rained.
" 13. Rained and turned to snow.
" 14. Thermometer 24° morning.
" 15. " 16° "
" 16. Sleeted.
" 17. A day of snow, with a driving wind.
" 18. Thermometer 0° morning.
" 19. " at zero; terrible driving wind from the west.

1864.

Jan'y 1. Thermometer 23° below 0; moderated 13° during the day. This has been the coldest day that I have ever experienced in Callaway county.
" 2. Thermometer 15° morning.
" 3. " zero morning.
" 4. " 6° "
" 5. " 10° below 0 morning; moderated 10° during the day.
" 6. " 16° " 0 " " 26° " "

Jan'y 7. Thermometer 14° below 0 morning.
" 8. " 6° " 0 " moderated 14° during the day.
" 9. " 5° " 0 " " 25° " "
" 10. " 0 " " 20° " "
" 11. " 0 " " 30° " "
" 23. For the last ten days the thermometer has ranged from 8° to 32° of mornings, and from 30° to 52° in the warmest part of the day.
" 29. For the last week the thermometer has ranged of mornings from 40° to 60°, and in the warmest part of the day from 60° to 70°. Rained last night.
Feb'y 16. After two weeks of unusually-mild winter weather, it turned suddenly cold; thermometer at zero.
" 18. Thermometer 1° below 0 morning; so dry that clouds of dust rise from the ground as one rides or drives along.
" 27. Raining.
March 16. Snowed violently for a little while this morning.
" 18. Thermometer 20° morning.
" 23. Has been quite cold for several days.
April 24. There has been much rain for several days.
May 11. White frost.
June 9. Thermometer 90° at noon.
" 11. " 52° morning, 70° noon; extremely dry.
July 2. Still extremely dry, and the thermometer for the last two weeks has been 90° to 96° daily in the heat of the day.
" 19. The same high temperature has prevailed for the last three weeks.
" 20. Cooler; thermometer 80 P.M.
" 22. Thermometer 80°.
" 30. Back at the same old notch, to-wit: 90° to 96° daily.
Sept'r 1. Intensely warm and dry; thermometer 100° P.M., 93° at sunset.
" 2. Heat increases; ther. 85° at sunrise, 102° at 3 o'clock, 96 at sunset.
" 3. Hotter still; ther. 85° at sunrise, 100° at noon, 104 at 3, 97° at sunset.
" 4. Thermom'r 83° at sunrise, 98° at noon; then the long-wished-for rain.
" 6. Another rain.
October 9. Frosted heavily.
Nov'r 3. Snowed the day long.
" 4. Snow a foot deep, and would have been fifteen inches but for its continuous thawing.
" 22. Thermometer 8° morning.
Dec'r 8. Thermometer 8° morning.
" 9. " 6° "
" 10. " 5° "
" 11. " 2° below 0; blustering day.
" 12. " 0.
" 13. " 28°.
" 14. " 14°.

1865.

Jan'y 23. Thermometer 8° morning.
" 24. " 4° "
" 25. " 0; moderated 20°.
" 26. " 5° below 0; moderated 15°.
" 27. " 4°; moderated 6°.
" 28. " 0; " 20°.
" 29. " 4°.
" 26. " 96°.

March 9. After a month's variable and changeable weather (but principally muddy), with some rain, it has again turned suddenly cold; thermometer standing at 4°.
" 10. Thermometer 10° morning.
" 16. " 25° " copious rains for two days, terminating with sleet.
" 30. Heaviest and most continuous cold rain that has been for years.
April 8. Weather quite cold for several days; thermometer 25°.
" 21. Wet, rainy spring.
" 22. Thermometer 30° morning; frequent gusts of snow.
" 23. " 28° " white hoar-frost.
May 5. Had a perfect deluge of rain.
" 13. White frost.
" 15. Thermometer 87° P.M.
" 26. Weather cool.
June 15. Had several fine rains lately.
July 15. Rain.
August 19. For more than a month it has been most rainy — ruinously wet.
October 30. Snowing.
Dec'r 12. The autumn has been of the mildest, blandest kind, but to-day the weather turned suddenly cold.
" 13. Thermometer 4° morning.
" 14. " 1° "
" 15. " 0 "
" 16. " 15° "
" 21. " 2° below 0.
" 22. " 6° morning.

1866.

Jan'y 20. Foggy, with snow, accompanied with thunder and lightning.
Feb'y 4. Very cold.
" 14. Thermometer 0 morning; howling, searching wind all day; snow to the depth of five inches.
" 15. Thermometer 12° below 0; calm, still day.
April 22. The spring has been very wet.
July 6. Thermometer 93° P.M.; weather excessively dry.
" 21. " 93° " vegetation suffering from want of rain.
" 22. " 94° "
" 23. " 96° "
" 24. " 94° "
" 25. " 95° "
" 27. " 97° at 3 o'clock, 98° at 4, and 90° at 6.
" 31. " 96° P.M.
August 3. Thermometer 94° P.M.
" 4. " 86° " in sore need of rain.
" 11. " 97° at 2 o'clock, 90° at 7 o'clock P.M.
" 12. " 80° at 5 o'clock morning, 97° at 2, 98° at 4, 100° at 5, 96° at 6; a shower of rain coming on then, reduced the temperature to 90° at 7 o'clock P.M.
" 13. Had a much-needed rain.
" 14. All appearance of the rain has disappeared; the thirsty earth absorbed it so quickly that the benefit of it is not perceivable.
Sept'r 1. After a most serious and protracted drought, we are getting the long-desired rain copiously.

Sept'r 21. For three weeks have we had rain almost without intermission; killing frost, that nips many a tobacco-plant.
" 22. More frost.
Dec'r 10. Thermometer 10°; first winter weather.
" 11. " 15°.
" 12. " 10°.
" 15. Regular sleet and snow.
" 16. Snow three inches deep.
" 30. Thermometer 10° morning, and has been daily.

Hoping that you may cull something useful out of this, I remain,
Most respectfully, yours, HURON BURT.

Meteorological Table, kept by Dr. H. N. MINER, *of Hanover, Jefferson county, Mo., during the years* 1865 *and* 1866.

Jan'y, 1865. Mean temperature, 30.94.
Mercury highest on the 5th at 12: 60°.
" lowest on the 26th at 6 A.M.: 2°.
Coldest day on the 26th: mean 10°.
Nine inches of snow fell in the month, in two storms, on the 6th and 9th.
Warmest day on the 31st: mean 48°.
There were 13 fair days, 18 cloudy days, 2 stormy days.
Wind blew from the south, 8 days; north, 8 days; north-west, 6 days; south-west, 3 days; south-east and east, 6 days.
Prevailing winds, southerly.

Feb'y 1865. Mean temperature, 41.1.
Mercury highest on the 20th at 12 M.: 68°.
" lowest on the 12th at 6 A.M.: 22°.
Coldest day " 8th: mean 25°.
Warmest day " 20th: " 53°.
There were 10 fair days, 18 cloudy days, 5 rainy days, 1 snowy day—fell 2 inches on the 14th.
First bluebirds on the 6th; wild geese flew north on the 16th.
First robins on the 21st.
Wind blew from the south, 8 days; north, 3 days; east, 9 days; west, 8 days.
Prevailing winds, south and east.

March, 1865. Mean temperature, 49.38.
Mercury highest on the 25th at 12 M.: 75°.
" lowest " 10th at 6 A.M.: 18°.
Coldest day on the 9th: mean 22°.
Warmest " 19th: " 65°.
We had 19 fair days, 12 cloudy days, and 5 rainy days.
Heavy thunder and lightning on the 1st; light fall of snow on the 3d. On the 8th thermometer and barometer both began to fall, the latter very rapidly; it rained very gently all day and froze as fast as it fell. On the 9th everything was covered with ice—many limbs of trees broke. On the morning of the 10th the sun came out very fair, and the trees and shrubbery presented one of those truly-beautiful sights very seldom seen: all nature seemed hung with magnificent diamonds and emeralds; *I* certainly never saw anything like it. Surely, March "came in like a lion and went out like a lamb."

April, 1865. Mean temperature, 66.6.
Mercury highest on the 27th: 90° at 12 M.
" lowest " 8th.
Warmest day " 27th: mean 74°.
Coldest " " 9th: " 36°.
We had 14 fair days, 16 cloudy days, 8 rainy days, and two heavy freshets—one that carried away bridges and mill-dams and caused other damage.
Wind south, south-east, and south-west, 20 days; west, east, and north-east, 10 days.
The 14th of this month is a day that will long be remembered by the American people.

Jan'y, 1866. Mean temperature. 36.3.
Coldest day on the 20th: mean 7.1.
Warmest " 12th " 57°.
Mercury highest on the 29th: 68° at 12 M.
" lowest " 20th: 0 at 6 A.M.
Wind south, southeast, and south-west, 19 days; west, 5 days; east, 7 days.
The only time the mercury has been down to zero since January, 1864. when it went 22° below; a very sudden change of weather. Mercury fell 56° from 4 P.M. of the 19th to 6 A.M. of the 20th. First blue-birds on the 29th. Had 14 fair days and 17 cloudy days. Mississippi river broke up on the 12th. Snow fell 1 inch on the 24th.

Feb'y, 1866. Mean temperature, 37.6.
Coldest day on the 15th: mean 3°.
Warmest " 27th: " 63°.
Mercury lowest on the 15th: 4° below zero.
" highest " 27th: 80° at 12 M.
Had 17 fair days, 11 cloudy days, and 5 stormy days.
Snow fell 3 inches on the 17th.
First robins on the 23d.
Wind west, north-west, and north, 12 days; south, 8 days; east, 8 days.

March, 1866. Mean temperature, 46.1.
Coldest day on the 25th: mean 27°.
Warmest " 19th: " 68°.
Mercury highest on the 20th: 84°.
" lowest " 25th: 20°.
Had 12 fair days, 19 cloudy days, and 5 rainy days.
Wind north, north-east, and north-west, 14 days; east, 6 days; south and south-west, 8 days; and west, 3 days.
30th, frost out of the ground in most of the county; many have commenced plowing.

April, 1866. Mean temperature, 62.6.
Warmest day on the 2d: mean 79°.
Coldest " 6th: " 43°.
Mercury highest on the 2d: 90°.
" lowest " 6th: 36°.
Had 24 fair days, 6 cloudy days, and 4 rainy days.
Wind south, 10 days; east, 6 days; west, 4 days; north-east, 4 days; north-west, 6 days.
This month has been a very pleasant one, and a fine business month.

May, 1866. Mean temperature, 71.6.
Warmest day on the 18th: mean 83.1.

May, 1866. Coldest day on the 3d: mean 60°.
Mercury highest on the 18th: 96°.
" lowest " 3d: 44°.
Had 22 fair days, 9 cloudy days, and 5 rainy days.
Wind south, 18 days; south-east and south-west, 8 days; and east, 5 days.
A very genial, growing, fine month; all nature is putting on her holiday attire; flowers are looking beautiful.

LETTER FROM C. W. PRITCHETT, OF GLASGOW.

GLASGOW, MO., *December* 22, 1866.

DEAR SIR: In reply to yours of the 12th, I regret to say that I kept no meteorological record for the year 1866; and whatever I had for previous years perished during the war. I can only make this general statement, as the result of several years' observation: The variations of the barometer in *this climate* are extremely small, particularly in winter. The greatest *hight* is always attained in winter, and I have never seen it exceed 30 inches nor come lower than 29; for a great part of the time, about 29.6 is the average. The thermometrical variations are singularly rapid and great—sometimes so great as 112° in twenty-four hours. But I can give no dates. In the course of a few months we expect to inaugurate, in connection with *other observations*, meteorological observations of value in this institution.

I might add that, for several years past, the number of meteors observed in the fall season is unusually large. Very respectfully, C. W. PRITCHETT.

Meteorological Observations made at Rolla, Mo. By STILLMAN RUGGLES.

1866.	THERMOMETER.				No. of Observations.	Snow in inches.	Rain in inches.	Fair Days.	Cloudy Days.	Snowy Days.	Rainy Days.	Greatest Heat.	Greatest Cold.	Range of Thermom'r.	Warmer than 1865, at Waterbury, Vt.
MONTHS.	6 A. M.	Noon.	9 P. M.	Mean.											
Feb. (last 12 days)	30.50	47.75	38.58	38.94	36	3.	1.75	7	5	2	2	66	18	48	14.72
March	36.32	49.00	41.45	42.25	93	.....	2.85	14	17	...	7	78	17	61	7.17
April	52.13	67.66	58.40	59.39	90	.....	6.12	17	13	...	6	82	30	52	13.73
May	53.80	72.61	59.42	61.94	93	.....	2.85	17	14	...	6	86	32	54	6.16
June	64.66	80.06	67.76	70.82	90	.....	2.37	21	9	...	7	91	50	41	1.02
July	71.25	85.38	72.93	76.52	93	.....	6.36	22	9	...	7	92	60	32	9.26
August	61.32	84.06	65.64	70.34	93	.....	1.50	25	6	...	4	98	42	56	4.70
September	55.36	69.50	59.53	61.46	90	.....	13.75	12	18	...	14	88	36	52	.19
October	45.51	70.64	50.67	55.60	93	.....	2.18	22	9	...	3	84	25	58	13.01
November	37.66	56.53	44.00	46.06	90	.....	.58	22	8	...	4	79	18	61	9.43
December	30.12	39.00	34.22	34.44	93	4.50	1.10	9	22	4	3	60	4	56	8.69
														10)	73.36
Average for ten months															7.34

ALLENTON, ST. LOUIS COUNTY, MO., *Jan'y* 12, 1867.

L. D. MORSE, *Commissioner of Statistics.*

DEAR SIR—Inclosed I send you the promised Meteorological Observations. They prove the fact that the mean annual temperature of Allenton is from two to three degrees lower than that of the city of St. Louis, although only thirty-two miles west of the latter place, and at about the same elevation.

RESULTS OF METEOROLOGICAL OBSERVATIONS AT ALLENTON, ST. LOUIS COUNTY, MO., 482 FEET ABOVE THE LEVEL OF THE SEA, FROM APRIL 1st, 1864, TO DECEMBER 31st, 1866: By A. Fendler.

YEAR.	Months, &c.	THERMOMETER IN OPEN AIR. Monthly means. 7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Date.	Minimum.	Date.	Range.	BAROM'R HIGHT REDUCED TO FREEZING POINT. Monthly means. 7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Date.	Minimum.	Date.	Range.	Amount of rain and melted snow, Inches.	Depth of snow, Inch's.	No. of days on which it rained or snowed.	AMOUNT of CLOUDINESS. 7 A. M.	2 P. M.	9 P. M.	No. thunder-storms.	Date of latest and earliest frosts.	MONTH.	YEAR.
1864	April	44.9	57.5	47.8	50.1	82.0	26th	27.0	13th	55.0												14	7.1	8.0	5.8	1	13th	April	1864
	May	56.6	69.6	60.8	65.7	97.0	22d	30.5	3d	66.5	29.465	29.419	29.421	29.435	29.650	28th	29.112	9th	0.538			7	2.7	4.5	2.1	2	3d & 11th	May	
	June	66.7	88.8	70.1	75.2	103.0	30th	44.0	14th	59.0	.538	.482	.492	.504	29.678	25th	29.241	5th	0.437			6	3.9	5.6	2.3	5		June	
	July	69.5	89.8	72.6	77.3	99.5	18th	48.0	24th	51.5	.569	.517	.519	.535	29.807	22d	29.315	31st	0.492			9	4.0	5.2	3.2	8		July	
	August	66.9	84.5	71.0	74.1	98.5	26th	51.0	27th	47.5	.482	.435	.456	.458	29.671	8th	29.251	4th	0.420	1.66		14	6.8	6.8	3.8	3		Aug.	
	September	57.7	82.7	63.1	67.9	106.5	2d	34.0	19th	72.5	.514	.450	.473	.479	29.750	25th	29.106	4th	0.644	3.37		6	3.8	3.9	2.7	4	25th	Sept.	
	October	39.3	59.4	43.3	47.3	76.0	11th	24.0	31st	52.0	.538	.484	.514	.511	29.813	22d	29.115	26th	0.698	2.13		6	3.7	4.3	2.7	2		Oct.	
	November	35.8	50.9	41.1	42.6	76.0	29th	11.0	22d	65.0	.504	.452	.502	.486	29.868	18th	28.857	9th	1.011	3.90	3	8	7.3	6.8	6.4	1		Nov.	
	December	22.2	34.4	28.0	28.2	67.0	2d	−10.0	23d	77.0	.544	.513	.540	.532	30.085	8th	28.948	26th	1.137	1.63	3¼	7	6.8	7.7	6.3	1		Dec.	
1865	January	16.7	33.6	25.8	25.4	53.0	20th	−7.0	11th	60.0	.657	.628	.643	.643	30.049	29th	29.214	20th	0.835	0.65	5½	5	5.5	6.5	4.5	0		Jan.	1865
	February	29.5	42.4	33.4	35.1	62.0	20th	7.0	9th	55.0	.567	.535	.558	.553	30.029	4th	28.773	25th	1.256	4.27	1¾	8	7.1	6.6	5.9	1		Feb.	
	March	36.3	52.6	41.7	43.5	73.5	17th	5.0	10th	68.5	.519	.472	.494	.495	29.900	18th	28.971	30th	0.929	8.87	⅛	12	5.5	5.1	4.8	3		Mar.	
	April	46.4	63.1	51.6	53.7	85.0	26th	27.5	8th	57.5	.563	.517	.521	.534	30.008	7th	29.084	11th	0.924	3.89		15	4.9	5.9	5.3	5	24th	April	
	May	56.9	75.9	59.2	61.0	92-0	20th	32.5	12th	59.5	.466	.426	.430	.441	29.722	31st	29.116	20th	0.606	4.63		11	4.4	5.4	3.4	5	12th	May	
	June	67.0	83.7	68.4	73.0	92.0	24th	49.5	26th	44.5	.519	.476	.478	.491	29.679	1st	29.268	13th	0.411	4.57		13	5.5	6.2	3.4	2		June	
	July	66.9	80.9	67.6	71.8	96.0	3d & 4th	47.0	17th	49.0	.550	.517	.518	.528	29.770	22d	29.164	18th	0.606	9.26		13	6.4	6.5	3.8	8		July	
	August	64.1	83.3	67.5	71.6	92.0	30th	47.0	23d	45.0	....	....	....	....	....	....	....	....	....	3.72		7	4.6	4.6	2.7	3		Aug.	
	September	67.5	81.9	68.6	72.7	92.0	12th	46.0	20th	46.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	2		Sept.	
	October	45.1	65.5	50.9	53.8	81.0	11th	25.0	29th	56.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	..		Oct.	
	November	31.9	57.4	39.5	42.9	74.0	24th	17.0	27th	57.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	..		Nov.	
	December	20.6	35.7	26.8	27.7	64.0	2d	−3.0	21st	67.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	1		Dec.	
	Annual Means, 1865	45.7	63.0	50.1	52.9	....	.....	....	....	....																			
	Maximum and Minimum of the year.	....	....	....	....	96.0	July 3d & 4th	−7.0	Jan. 11th	103.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	..			
1866	January	21.9	36.5	27.8	28.7	58.0	29th	−4.0	20th	62.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	1		Jan.	1866
	February	22.2	38.9	28.1	29.7	70.0	27th	−14.0	16th	84.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	2		Feb.	
	March	34.4	48.5	37.2	40.0	84.0	20th	11.0	17th	73.0	29.667	29.614	29.631	29.637	30.079	8th	28.915	20th	1.164	2.97		7	6.2	6.5	5.6	2		Mar.	
	April	49.4	67.4	54.4	57.1	93.0	27th	22.0	8th	71.0	.500	.453	.442	.465	29.923	6th	29.162	22d	0.761	3.68		9	6.0	5.5	4.6	4		April	
	May	52.7	73.0	54.0	59.9	88.0	19th	35.0	30th	53.0	.466	.425	.438	.443	29.687	21st	28.891	27th	0.796	3.04		6	6.0	5.5	4.4	2	29th	May	
	June	61.5	81.0	63.5	68.7	91.0	25th	39.0	19th	52.0	.496	.443	.456	.465	29.771	29th	29.112	4th	0.659	3.32		10	3.9	5.8	3.3	3		June	
	July	69.4	87.0	70.8	75.7	95.0	27th	51.0	2d	44.0	.554	.500	.504	.519	29.704	12th	29.351	4th	0.353	4.93		9	4.6	5.7	2.9	1		July	
	August	59.3	84.1	63.3	68.9	97.0	11th	38.0	25th	59.0	.541	.486	.499	.509	29.740	16th	29.115	31st	0.625	3.53		9	3.3	4.8	2.8	3		Aug.	
	September	52.9	68.8	56.1	59.3	80.0	2d	30.0	22d	50.0	.534	.507	.525	.522	29.804	26th	29.228	1st	0.576	8.90		14	6.4	6.7	5.5	3	21st	Sept.	
	October	43.9	66.4	48.0	52.8	78.0	2d	22.0	31st	56.0	.638	.576	.602	.605	29.983	16th	28.933	21st	1.050	2.92		5	3.9	3.9	3.2	3		Oct.	
	November	35.0	51.5	40.2	43.2	77.0	3d	17.0	25th	60.0	.587	.523	.556	.555	30.021	5th	29.148	15th	0.873	1.48		5	4.6	5.4	3.6	0		Nov.	
	December	26.5	37.2	29.7	31.1	56.5	4th	−1.0	30th	57.5	.573	.552	.575	.567	29.963	12th	28.979	22d	0.984	2.78	1¾	8	6.8	7.4	5.4	1		Dec.	
	Annual Means, 1866	44.1	61.9	47.8	51.3	....	.....	....	....	....																			
	Maximum and Minimum of the year.	....	....	....	....	97.0	Aug'st 11th	−14.0	Feb 16th	111.0	....	....	....	....	....	....	....	....	....	....		..	....	....	....	..			

METEOROLOGICAL REPORT KEPT AT CANTON, LEWIS CO., MO.

BY GEORGE T. RAY, ESQ.

Year.	Average Yearly Temperatures.									Average Amount of Rain and Snow.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Highest Temperature.		Lowest Temperature.		Range of Thermometer.	Rain, inches.	Snow, inches.	Total Rain and Melted Snow, in inches.
1862	45.5	59.5	47.	50.8	July 6	104°	Jan. 16	—17°	121°	46.5	21.	48.5
1863	45.3	60.	47.8	51.3	Aug. 16	102°	Dec. 31	—17°	119°	31.3	36.2	34.8
1864	44.2	60.6	46.5	50.4	June 30	100°	Jan. 6	—33°	133°	42.6	4.	43.
1865	45.4	61.1	50.	52.2	Aug. 9	97°	Dec. 21	—19°	116°	46.2	9.	47.
Mean...	45.1	60.3	47.8	51.2	.....	.....	.....	.....	122°	41.6	17.5	43.3

AVERAGE MONTHLY TEMPERATURES.

Year.	Jan'y.	Feb'y.	March.	April.	May.	June.	July.	August	Sept'r.	Oct'r.	Nov'r.	Dec'r.
1862	20.17	21.95	37.06	48.68	64.72	71.48	78.08	72.30	68.05	52.57	36.87	34.53
1863	31.31	28.63	37.96	51.61	64.74	70.80	75.78	76.89	66.91	43.62	38.30	28.68
1864	19.63	31.65	34.59	48.01	66.80	74.57	79.35	74.08	68.14	47.32	38.00	23.17
1865	21.88	32.23	37.16	51.01	63.01	74.81	72.75	78.35	74.00	55.78	40.62	22.39
Mean	23.25	28.61	36.69	49.83	64.82	72.91	76.49	75.40	69.27	49.82	38.45	29.44

Year.	Spring.	Summer.	Autumn.	Winter.	
	.....	.....	.....	25°.13	1861 and 1862
1862	50.15	73.95	52.50	31.5	1862 " 1863
1863	51.44	74.49	49.61	26.65	1863 " 1864
1864	49.80	76.00	51.15	25.75	1864 " 1865
1865	50.39	75.30	56.80	26.75	1865 " 1866.
Mean	50.44	74.93	52.52	27.18	

METEOROLOGICAL OBSERVATIONS MADE AT PLEASANT HILL, CASS COUNTY, MISSOURI.

BY G. C. BROADHEAD.

	Date.	Ther. Sunrise.	Ther. 9 A. M.	Ther. 12 M.	Ther. 3 P. M.	Ther. 6 P. M.	REMARKS.
1864—Dec.	21		14		20	20	
	22			11			
	23		23				
	24		30				
	25		38		45		
	26						
	27				40		
	28			19			
	29	22				42	
	30			32			A little snow.
	31	16			31		
1865—Jan.	1	25		44			
	2	31					
	3	28					
	4		31		43		
	5	33					
	6	22					
	7	19					
	8		33		32		
	9	22		25			Three inches snow last night.
	10	22			31		
	11	10	22				
	12	28				37	
	13	37					
	15	30	32	40			
	16	16					
	17	23	28		41		
	18	21		28			
	19	20					
	20			55			
	21	28				24	Cold—snow in afternoon.
	22	10		15	16	12	
	23	4	9	17			
	24	— 3		12	14	8	
	25	— 1	11		19		
	26	— 4	0	11	16	8	
	27	4		21	23	12	
	28	— 1	9	22	28	22	
	29	9	1	36			
	30	33			37	35	Drizzle.
	31	35	39	48	43		Misty.
Feb.	1	39				43	Misty.
	2	48	50	54	55		Some drizzle in morning—evening
	3	42	43	44	42	36	Clear in evening. [rain.
	4	27	24	29	33	31	
	5	22	31	34	36	30	
	6	22	32	40		33	Sunshiny.
	7	27	26	28	30		Snowy.
	8	12			29	23	
	9	15	24		44	36	
	10		31	38		35	Sunshiny.
Oct.	1					70	
	2	56			78		
	4	60			80		

METEOROLOGICAL OBSERVATIONS—*Continued.*

	Date.	Sunrise.	9 A. M.	12 M.	3 P. M.	6 P. M.	REMARKS.
1865—Oct.	5	56			82		
	6	60					
	7	66					
	8				80		
	12			74		68	
	21				76		
	27	40					Drizzling in morning; also yes- [terday.
	28	28					
	29	28		38			
	30	32					Snow.
Nov.	14	54					
	16		64				
	20			65			
	23			68			
	30	37					
Dec.	3			45			Rain.
	4	22					
	6		33				Sleet in morning; afterward snow.
	8		24				
	11					32	Evening windy.
	12	+ 6					
	13	— 6		+ 6			
	14	— 2			+ 8		
	15	— 2		+45		+12	
	16	+18		27			
	17	21		41	45		
1866—Jan.	1	13					
	7			39	37		
	9						A little rain.
	10						Rainy.
	11	47					"
	14		25			32	
	15	35			25	21	Thunder last night; rain, snow,
	16	12			32		[sleet.
	17	32		35		22	
	18	8	9			25	
	19	13		10	8	1	Strong north wind; some snow.
	20	— 9	— 5	+ 6	+11	+ 9	
	21	+ 5			33		
	22	28		41			
	23	27		28	23		Sleet; two inches snow.
	24	19			29		
	25	18		38	41		
	26	34			37		
	27	33			40		
	28	35					
	29	31					
Feb.	2				30		
	3	15			32		
	4		7	13	14		
	5				32		
	6	17			41		
	7	26					
	8	28					Slight snow.
	9	38					
	10		41		35		Rain in morning; afterward fine
	11	24			40		[snow.
	12	29			35		
	13	25					Snow from N.E. at 2 P. M. and continued till dark; 6 inches fell; muddy last night.
	14	— 5	— 5½	— 1	+ ½	— 8	Snow drifted; to-day a strong NW. wind.

METEOROLOGICAL OBSERVATIONS—*Continued.*

	Date.	Sunrise.	9 A.M.	12 M.	3 P.M.	6 P.M.	REMARKS.
1866—Feb.	15	—10		+ 4	+ 8	+ 6	
	16	— 2	+20	32	37		
	17	25		39			
	18		36		44		
	21	35		59	61	56	
	22					37	At 4 P.M. 46°; wind arose, with
	27	26			27		Sleet. [rain.
	24	23	26		37		
March	11						Thunder-storm last night.
	12	30					
	13	30					Slight snow in morning.
	15	34					Two inches snow last night.
	16	23					Slight snow at night.
	17	14					
	24	20				28	
	25	22					
							About middle September a frost; no more until about 20th October.
Dec.	16						Six inches snow.
	27	10					
	28	8					Two inches snow last night.
	29	10					1½ inches snow last night.
	30	15					1½ inches snow.
	31	20			13		Cold; a little snow.
1867—Jan.	1	— 2					

Some rain nearly every week during the year 1866.
During the year 1865 there was a great deal of rain; month of August very wet. 1864 was dry.

PHYSICAL GEOGRAPHY OF MISSOURI.*

BY PROFESSOR C. G. SWALLOW.

BOUNDARIES AND AREA.

The State of Missouri lies between 30° and 40° 80′ north latitude, and between 11° 45′ and 18° 50′ west longitude. It is bounded on the north by Iowa; on the east by Illinois, Kentucky, and Tennessee; on the south by Arkansas; and on the west by Indian Territory, Kansas, and Nebraska—including an area of 63,000 square miles.

FACE OF THE COUNTRY.

At a period away back in the geological ages, some subterraneous force pushed up through the crust of the earth a series of knobs and irregular ridges and hills in a region extending from Ste. Genevieve, in a southwest direction, to Shannon and Texas counties, covering some portions of Madison, St. Francois, Washington, Iron, and Reynolds counties. After this, these knobs and ridges were islands in the ocean which covered the State. On the bottom of this ocean the consolidated strata of limestone, sandstone, and other rocks, were formed. In the course of events the country was raised above the ocean, and the surface presented a broad, undulating plateau, from which projected the hills and ridges above named. The rains descended upon this plateau, and the waters collected into branches, creeks, and rivers, and flowed away to the ocean, as now; and during the succeeding cycles the channels and valleys of the streams were worn into the rocks as they now appear.

These facts respecting the formation of our State give us a good idea of the surface of the country. It may be described as a broad, undulating table land, or plateau, from which project a series of hills and ridges, extending from Ste. Genevieve to the southwest, and into which the branches, creeks, and rivers have worn their deep, broad channels and valleys. Besides the local undulations in this plateau, some portions of it are much higher than others, as indicated by the course of the streams. In that portion of the State north of the Missouri river the northwest part is the highest, and there is a general descent to the south and east. The streams show the descent to the south very distinctly; and though they do not show so decided a descent to the east, the railroad surveys show that the Mississippi river is some three hundred feet lower than the Missouri in the same latitude. The Missouri at Weston is three hundred and twenty feet higher than the Mississippi at Hannibal. There is also a high region extending along the line of the North Missouri railroad, from Montgomery to the State line in Schuyler.

The highest part, south of the Missouri, is a high divide extending from Greene county through Webster, Wright, Texas, Dent, Iron, and St. Francois counties. The western part of this high region is a broad, rolling table land; but the eastern end is broken into numerous knobs, hills, and ridges, as seen at Pilot Knob. From these highlands the waters descend in all directions: on the south to the White river

* From the unpublished notes of the Geological Survey.

and the Arkansas, on the west to the Neosho, on the north to the Missouri and the Meramec, and on the east to the Mississippi. There is another region much less elevated, extending from Cole county westward to Cass, and dividing the waters of the Osage and the Missouri.

The elevation of the following places will give a general idea of the surface in this part of the State. The figures are the elevations above tide-water in Mobile bay:

St. Louis Directrix,	372 feet.
Base of Pilot Knob,	909 "
Top of Pilot Knob,	1,490 "
Marshfield, in Webster county,	1,402 "
New Madrid,	247 "
Ohio City,	272 "
Granby, Newton county,	1,030 "

By these altitudes it will be observed that the top of Pilot Knob, on the eastern end of the above-named highlands, is only twenty-eight feet higher than Webster on the table lands of the western end. Ohio City, at the mouth of the Ohio, is one hundred feet below St. Louis.

Besides these general irregularities of the surface, there are numerous undulations, which give the country its rolling character, and numerous valleys and ravines, which render it more or less rough and broken. These valleys, worn by the streams, are an important feature in the physical structure of the State, as they have a material influence on the climate and give us vast quantities of the very best bottom lands.

The valleys of the large rivers vary in width from two miles to ten, while those of the smaller streams are proportionally narrower.

NAVIGABLE WATERS.

The Mississippi washes the entire eastern border of the State a distance of five hundred miles. The Missouri washes the western boundary from the north-west corner southward some two hundred and fifty miles, to the mouth of the Kansas, whence it takes a course south of east, through the heart of the State, to its junction with the Mississippi, a distance of nearly four hundred miles.

Besides these two mighty streams, they have many tributaries within the State which are more or less navigable for steamboats, keelboats, and barges. On the right bank of the Missouri, the Gasconade, the Osage, and the LaMine, are navigable. The lumber business of the Gasconade makes its navigation a matter of importance. The trade of the towns on the Osage has induced steamers to make regular trips as high as Warsaw. Barges and keelboats might pass up as high as the State line. There is no business to call boats up the LaMine, even the short distance its waters are navigable.

On the left bank, the Platte, the Chariton, and Grand river, are navigable for keelboats and barges, and even steamers have made some few trips on their waters. The DesMoines, Salt river, and the Meramec, the St. Francois and White rivers, have been navigated by steamers on a few important occasions. Barges might be used on all of these and several other streams for the transportation of merchandise and the products of the country on their shores.

SMALLER STREAMS.

There are a vast number of smaller streams, such as are called rivers, creeks, and branches. A glance at the map will show how well these are distributed over the entire surface and supply an abundance of water to all parts of the State.

SPRINGS.

No country is better supplied with bold springs of pure waters. Out of the bottoms there is scarcely a section of land but has one or more perennial springs of good water. Many of these springs are large, even beyond the conception of those who have not

seen the rivers which flow from them and drive the mills and machinery placed upon their waters. One may serve as a sample. Bryce's spring, on the Niangua, discharges 10,927,872 cubic feet of water per diem, drives a large flouring mill, and flows away a river forty-two yards in width. These vast springs are very numerous in the south part of the State.

SALT SPRINGS

Are very abundant in the central part of the State. These springs are large and numerous, and discharge vast quantities of excellent brine, in Cooper, Saline, Howard, and the adjoining counties. These brines are near the navigable waters of the Missouri, in the midst of an abundance of wood and coal, and might furnish salt enough to supply all the markets of the continent.

SULPHUR SPRINGS

Are also numerous and more generally diffused throughout the State. The Chouteau springs in Cooper, the Monagan springs in St. Clair, the Elk springs in Pike, and the Cheltenham springs, St. Louis county, have acquired considerable reputation as salubrious waters, and have become places of popular resort. There are good sulphur springs in at least half the counties in the State, and the waters of the most of them are good, and similar to the waters of the Chouteau and the Elk springs.

CHALYBEATE SPRINGS.

There are a great many springs in the State which are impregnated with some of the salts of iron. Those containing carbonates and sulphates are most abundant; some of these have acquired considerable reputation as medicinal waters. Sweet springs, on the Blackwater, are perhaps the most popular and valuable of the kind in the State.

PETROLEUM SPRINGS.

Tar springs, as they are called, are found in Carroll, Ray, Randolph, Cass, Lafayette, Bates, Vernon, and other counties of the State. Many of these springs discharge considerable quantities of oil. The variety called lubricating oil is the more common. It is impossible to say with certainty whether petroleum will be found in paying quantities in these localities; but the fact that it has been flowing from springs in such quantities would indicate some abundant source; and there is scarcely a doubt that there are reservoirs of considerable quantities. Where these reservoirs are, no one can tell with certainty, and all explorations must be undertaken in a considerable degree of uncertainty; and the fact that a few holes have been bored at any given locality without finding these reservoirs does not prove their non-existence. In this, as in all other oil regions, boring is a matter of chance. Not more than one hole in fifty has been successful, even in the most favored regions; and yet the vast wealth obtained by the few fortunate has induced the many to invest in the uncertain business.

WATER-POWER.

Though steam has to a great extent been substituted for water in driving machinery, a good water-power is still valuable for many purposes, especially in new rural communities. There are places in all our streams, save the Mississippi and Missouri, where they might be dammed and made to drive the machinery of mills and factories. Such places are most numerous in the south part of the State, where the streams have rock-beds to support the dams and make them permanent. I have noticed excellent localities of the kind on the Osage, Niangua, Pomme de Terre, Sac, Spring river, Big river, Castor, Meramec, Bourbeuse, Gasconade, Currant river, White river, Grand river, LaMine, etc. But the most valuable water-powers are the large springs which are so abundant throughout nearly all the counties in the southern part of the

State. Many of these springs are now used to drive mills of various kinds. They are particularly abundant on the waters of the Meramec, Gasconade, Bourbeuse, Osage, Niangua, Spring, White, Sugar, Big, Currant, Little, and Black rivers.

No water-power can excel that at Bryce's spring, on the Niangua. It discharges about 11,000,000 cubic feet of water per diem, with no perceptible variation of temperature or quantity. The temperature is about 60° Fahrenheit, so warm that no ice forms in it to obstruct the machinery; and the quantity is so regular that the machinist may know how much power it will exert each moment from the beginning to the end of the year, and can construct his dams and machinery economically, with just enough strength to meet the necessities of the case; whereas in streams, the uncertain rise and fall of the water and the ice are sources of great loss and annoyance.

There are hundreds of these springs sufficiently large to drive mills and factories; and the time is not far distant when these vast limpid fountains will make a thousand burrs and saws whirl and dance to their dashing music.

PRAIRIES.

When the country emerged from the waters which last covered it, the marls of the bluff formation occupied nearly all the surface of the State, and a rank vegetation of grasses and other plants sprang up, forming one vast prairie. Young trees grew with the other vegetation, but the fires which overran the country killed them out on the dryer and richer portions. They grew apace where the fires were too weak, by reason of water or a scarcity of vegetation, to destroy them. As the forests increased in size, they acquired power to withstand and check the fires; and thus they have gradually encroached upon the prairie, until more than one-half of the State is covered by our magnificent forests.

If a line be drawn from Hannibal to the south-west corner of the State, nearly all that portion to the north-west of the line will be prairie, and that on the south-east of it will be timber. Large areas of timber skirt the streams and cover portions of the uplands on the prairie side, and long arms of the prairie extend along the divides into the timbered side, as from Macon down along the North Missouri railroad to St. Charles, from Cass eastward along the Pacific railroad to Cole, and from Newton up along the highlands through Greene to Webster and eastward; and small patches of it checker the whole timbered region, even to the swamps of the south-east.

The bottom prairies are level, and often sublime in their vast extent; while upland prairies are rolling and grand in their endless succession of undulation, like the ocean subsiding from the effects of a storm.

TIMBER.

I herewith furnish you a descriptive catalogue of the trees, shrubs, and vines of the State, for the Agricultural Report, from which it will be seen that there is an abundance of the very best kinds of lumber, and that the useful varieties are as well distributed as in any portion of the Union:

Pine, walnut, cherry, ash, maple, birch, hickory, oak, linden, cottonwood, poplar, sweet, black and yellow gum, cedar, cypress, sycamore, locust, coffee-tree, elm, pecan, chestnut, tulip-tree (the "white and yellow poplar" of Kentucky and southern Missouri), beech, willow, hackberry, mulberry, tupelo, catalpa, ironwood, hornbeam, and box-elder, are found in great abundance in the State, and many of them in all their known varieties. There are six species of hickory, three of locust, eighteen of oak, and varieties of other trees in like proportion.

All these kinds of trees grow very large in our deep rich soils and our warm climate. The following, selected from the catalogue I send you for the Agricultural Report, will give an idea of the vast size to which these trees grow in our State:

Sycamores, 130 feet high and 43 feet in circumference; oaks, 100 feet high and 29 feet in circumference; cypress, 130 feet high and 29 feet in circumference; walnuts, 110 feet high and 22 feet in circumference.

But no figures, no descriptions, can give an idea of the grandeur and glorious beauty of our forests. Like Niagara, they must be seen, examined from above and below, and re-examined, visited and revisited, before they can be fully appreciated. One must walk in the midst of these mighty monarchs of the forest until he feels like a pigmy among giants; and must admire the grape-vines hanging like huge cables from their lofty branches, and mingling their purple clusters with the highest foliage, and the large orange flowers of the trumpet-creeper, and the crimson foliage of the American ivy, warming and beautifying their sombre shades; he must see these glories before he can appreciate their sublime beauty and grandeur.

Here, too, the utilitarian can find woods suitable for all the useful purposes to which they are applied. Oak, hickory, maple, ash, mulberry, locust, linden, poplar, elm, walnut, and pine, for carriages, wagons, and agricultural implements; pine, linden, poplar, cottonwood, walnut, cypress, cedar, oak, and gum, for houses and other buildings; walnut, poplar, linden, maple, cherry, coffee-tree, locust, gum, mulberry, tupelo, pine, cypress, cedar, birch, hickory, and oak, for cabinet-work; cedar, locust, oak, hickory, mulberry, and pine, for fences; and Osage orange, thorns, buckthorns, and cedar, for hedges. Millions of these varieties of lumber are destroyed every year in opening farms; and meanwhile we are importing millions in furniture and agricultural implements, and lumber for the various kinds of carpentry. There is poor economy in importing walnut, pine, cherry, poplar, birch, maple, oak, linden, and cedar, manufactured into furniture, from the Ohio and its tributaries, when we are destroying upon our farms more and better lumber of the same varieties every year.

While the Europeans are cultivating our forest trees and using our beautiful woods for their finest furniture, we are sending to Honduras and both Indies for woods to make our chairs and tables. While we are compelled to pay quadruple tribute to the iron, woolen, cotton, silk, linen, shoe, hat, cap, and glove manufacturers of Europe and the East, let us have the manhood, at least, to manufacture our own lumber and make our own chairs and plows and wooden spoons.

GEOLOGY.

The geology of Missouri presents a great variety of rocks and useful minerals. Ever since the early Spanish and French adventurers came to our borders, Missouri has been famous for her mineral wealth. Though Whitney disparaged our veins of lead and copper; though Daddow has demolished our iron mountains and scratched out our coal beds; and though our geologists and chemists have found an abundance of gold and platinum, which nobody loves well enough to work, still our mines of lead and copper and cobalt and nickel are yielding up their shining ores; our iron mountains still stand upon their molten bases, and our vast coalbeds still sleep beneath our broad prairies for the drill and pick of some live people to summon them forth to warm, serve, and make the nation rich.

The following geological systems are found in the State:

I. *Quarternary System*—which is made up of four formations: Alluvium, Bottom-prairie, Bluff, Drift. These surface deposits are well developed and form the basis of our rich soils.

II. *Tertiary System.*—The beautiful variegated sands and clays and shales and iron ores, which skirt the swamps of south-east Missouri along the bluffs from Commerce to the Chalk Bluffs in Arkansas, belong to this system.

III. *Cretaceous* (?) *System.*—The ruptered and tilted beds of hornstone, variegated sandstones and clays, on the bluffs above Commerce, probably belong to this system.

IV. *Carboniferous System*—which is made up of the Coal Measures, Kaskaskia Limestone, Ferruginous Sandstone, St. Louis Limestone, Archimedes Limestone, Encrinital Limestone.

V. *Devonian System*—which contains the Chouteau Limestone, Vermicular Sandstone, Lithographic Limestone, Hamilton Shales, Onondaga Limestone (?), Oriskany Sandstone.

VI. *Upper Silurian System*—of which we have Lower Heldeberg, Niagara Group, Cape Girardeau Limestone.

VII. *Lower Silurian System*—of which we have the Hudson River Group, Trenton Limestone, Black River and Bird's-eye Limestone.

Magnesian Limestone Series.	1st. Magnesian Limestone.
	1st. or Saccharoid Sandstone.
	2d. Magnesian Limestone.
	2d. Sandstone.
	3d. Magnesian Limestone.
	3d. Sandstone.
	4th. Magnesian Limestone.

The upper part of the Magnesian Limestone Series is doubtless equivalent to the Calciferous Sandrock, and the lower part of the Potsdam Sandstone.

VIII. *Azoic System*—Below the Magnesian Limestone Series, we have a series of metamorphosed slates, which are doubtless older than the known fossiliferous strata; whether they belong to the Taconic, the Laurentian, or Huronian, I am unable to say.

IGNEOUS ROCKS.

These are porphyry, granite and greenstone, trap. The economical relations of these rocks will be shown in treating of the useful minerals which they contain.

COAL.

Mineral coal has done much to promote the rapid progress of the present century; commerce and manufactures could not have reached their present unprecedented prosperity without its aid; and no people can expect success in those departments of human industry, unless their territory furnishes an abundance of this useful mineral.

Previous to the geological survey, it was known that coal existed in many counties of the State, but there was no definite knowledge of the continuation of workable beds over any considerable areas; but since the geological survey commenced, the south-eastern outcrop of the coal measures has been traced from the mouth of the Des Moines, through Clark, Lewis, Shelby, Monroe, Audrain, Boone, Cooper, Pettis, Henry, St. Clair, Bates, Vernon, and Barton, into the Indian Territory, and every county on the north-west of the line is known to contain more or less coal, giving us an area of over 26,000 square miles of coal-beds in that part of the State.

The geological survey has proved the existence of vast quantities of coal in Johnson, Pettis, Lafayette, Cass, Cooper, Chariton, Howard, Boone, Saline, Putnam, Adair, Macon, Carroll, Ray, Callaway, Audrain; and it is confidently expected that the counties to the north-west will prove to be as rich when fully examined.

Outside of the coal field, as given above, the regular coal rocks also exist in Ralls, Montgomery, Callaway, St. Charles, and St. Louis, and local deposits of cannel and bituminous coal in Moniteau, Cole, Morgan, Crawford, Callaway, and probably other counties.

Workable beds of good coal exist in nearly all places where the coal measures are developed, as some of the best beds are near the base, and must crop out on the borders of the coal field. This is found to be the fact where examinations have been made. All of the little outliers along the borders contain more or less coal, though the strata are not more than forty or fifty feet thick.

But exclusive of these outliers and local deposits, we have an area of twenty-six thousand eight hundred and eighty-seven square miles of the regular coal measures. If the average thickness of workable coal be one foot only, it will give 26,887,000,000 tons* for the whole area occupied by coal rocks. But in many places, the thickness

* The mining engineers of England allow 1,000,000 tons per square mile for every foot of workable coal.

of the workable beds is over fifteen feet, and the least estimate that can be made for the whole area is five feet. This will give 134,435,000,000 tons of good available coal in our State. In our efforts to estimate the economical value of so vast a deposit of this most useful mineral, we should constantly bear in mind the position of these beds, beneath the soil of one of the richest agricultural regions on the continent, within a State whose manufacturing and commercial facilities and resources are scarcely inferior to any, and adjacent to the Missouri river and the Pacific, the North Missouri and the Hannibal and St. Joseph railroads.

With all these advantages of location, the certainty that these coal-beds can furnish 100,000,000 tons per annum for the next thirteen hundred years, and then have enough left for a few succeeding generations, is a fact of no small importance to the State.

The local deposits of cannel and common bituminous varieties furnish some of the best coal in the State; and though many of these will not yield sufficient quantities for exportation or extensive manufacturing purposes, they are of great value for supplying the local demand. But some of the beds of the cannel varieties could furnish a very large supply of an excellent article for gas, oil, and those manufacturing purposes where a light pure coal, producing an abundance of flame, is desirable.

IRON.

Among minerals, iron stands pre-eminent in its influence upon the power and prosperity of a nation. Nations who possess it in large quantities, and by whom it is extensively manufactured, seem to partake of its hardy nature and sterling qualities. Missouri possesses an inexhaustible supply of the very best ores of this metal, and all desirable facilities for becoming the great iron mart of the western continent.

Specular Oxide of Iron.—This is one of the most abundant and valuable ores in the State. Iron mountain is the largest mass observed; it is two hundred feet high, and covers an area of five hundred acres, and is made up almost entirely of this ore in its purest form. The quantity above the surface of the valley is estimated at 230,000,000 tons. But this is only a fraction of the ore here, as it descends to unknown depths, and every foot of the descent will yield some 3,000,000 tons.

Veins of this ore cut the porphyry at the Shut-in, the location of the first iron furnace erected in this region. Fine beds of this ore were also found at the Buford ore-bed, at the big Bogy mountain, at Russell mountain, at the James iron works, and other localities in Phelps county; and in sections two, three, ten, and eleven, of township thirty-five, range four west, in Dent county, on the South-west Pacific railroad; also, in section thirty-one, township thirty-seven, range twelve west, in Pulaski county.

Silicious specular oxide of iron exists in vast quantities in Pilot Knob, where it has been worked for many years.

The specular and magnetic oxides exist in large veins in the porphyry of Shepherd mountain. It is a very pure ore, and large quantities have been mixed and smelted.

There is enough of the very best quality within a few miles of Pilot Knob and Iron mountain to furnish one million tons of manufactured iron per annum for the next two hundred years.

All these ores are well adapted to the manufacture of pig metal, and the most of them are suitable for making blooms by the Catelan process, and steel by the Bessemer process.

Hematite of good quality is very common, in large deposits, in the magnesian limestone series. It is also abundant, but generally of an inferior quality, in the ferruginous sandstone and tertiary rocks. Large quantities of this ore have been discovered in Cooper, St. Clair, Greene, Henry, Franklin, Benton, Dallas, Camden, Stone, Madison, Iron, Washington, Perry, St. Francois, Reynolds, Stoddard, Scott, and Dent counties. The beds discovered in Scott and Stoddard counties are very extensive, and of good quality. The beds in the tertiary rocks of Scott county are of poor quality.

Bog ore is very abundant in the swamps of south-east Missouri. I examined vast beds of it in Scott county, on the Stake glades. From this point the ore was seen at short intervals in St. John's lake down to the Iron Ore ford, where the quantity is very great. This ore also exists in Big Cypress, west of Sandy prairie. It was also discovered in extensive beds in the swamp south-west of Charleston, in Mississippi county. In Dunklin county, in Buffalo and Honey Cypresses, fine beds were discovered several miles in length. The quantity of this ore, in this part of the State, is very great; more than enough to supply all future demands.

SPATHIC ORE, OR CARBONATE OF IRON.

This ore is found in greater or less quantities in all parts of the State where the coal measures exist, but the most valuable beds yet examined are those in the tertiary rocks in Scott county.

LEAD.

Next to iron, lead is perhaps the most abundant of all the valuable metals in the State. Our lead mines have been worked with great success for the last half century. It is true that the amount of mining done and the success of various points have been somewhat variable, as is always the case in mining operations where conducted and carried on by men who have but little capital and practical knowledge of the work, as ours have been—in some considerable degreee, at least. Many of our mines have been neglected for various reasons: some on account of disputed titles, others from the general depression of the business, and others on account of the late military troubles. But there is no good reason to suppose our mines would be less productive now than at any previous period. Few or none have been exhausted, and many are now worked with greater success than at any previous time. All the facts encourage a more extended effort to work and more fully develop some of the neglected mines and open new ones.

Our space will not permit a detailed account of the lead mines of the State. There are more than five hundred localities, old and new, that promise good returns to the miner. Two hundred and sixteen have been catalogued, in my report, on the South-west Branch of the Pacific railroad.

The eastern lead region comprises a large portion of Franklin, Washington, Jefferson, Crawford, Phelps, Dent, Madison, St. Francois, Ste. Genevieve, and some parts of the adjoining counties, giving an area of some five thousand square miles.

The south-western lead region comprises a large portion of Newton, Jasper, and small tracts of the adjoining counties, making an area of about two hundred square miles.

The Osage lead region contains a considerable portion of Cole, Moniteau, Morgan, Benton, Camden, and Miller counties—an area of about one thousand square miles.

The southern lead region comprises portions of Taney, Christian, Webster, and perhaps other counties. The extent is not known, as that part of the State has not been fully examined, but there is at least one hundred square miles in the counties above named.

It is not to be supposed that these areas, large as they are, contain all the lead lands of the State.

We have not yet examined a single county south of the Osage and the Missouri, save in the swamp country, without finding in it more or less of this valuable mineral; and besides, nearly all the counties are underlaid by the true lead-bearing rocks of our State. We have, then, six thousand three hundred square miles in which lead deposits, in workable quantities, have been found and successfully worked; and at least fifteen thousand square miles more of lead-bearing rocks, where we may reasonably expect to find valuable deposits of this mineral. I must refer to the geological reports for the detailed account of our lead mines.

COPPER.

The copper mines of Shannon, Madison, and Franklin counties, have been known for a long time. Some of the mines of Shannon and Franklin were once worked with bright prospects of success; some in Madison are still worked with good results.

Deposits of copper have been discovered in Dent, Crawford, Benton, Maries, Greene, Lawrence, Dade, Taney, Dallas, Phelps, and Wright counties. But the mines in Franklin, Shannon, Madison, Crawford, Dent, and Washington, give greater promise of yielding profitable results than any others yet discovered.

When capitalists are prepared to work these mines in a systematic manner, they may expect good returns for the money invested.

ZINC.

Sulphuret of zinc is very abundant in nearly all the mines in south-western Missouri, particularly in those mines in Newton and Jasper, in the mountain limestone. The carbonate and the silicate occur in the same localities, though in much smaller quantities. The ores of zinc are also found in greater or less abundance in all the counties on the south-western branch; but the distance from market and the difficulties in smelting the most abundant of these ores, the sulphuret, have prevented the miners from appreciating its real value. It often occurs in such large masses as to impede very materially the progress of mining operations. For this reason *Black-Jack* is no favorite with the miners of the south-west. Many thousand tons have been cast aside with the rubbish as so much worthless matter; but the completion of the South-western Branch will so lessen the cost of transportation as to give a market value to this ore, and convert into valuable merchandise the vast quantities of it which would be so easily obtained in Jasper, Newton, and other counties of the south-west.

Considerable quantities of the sulphuret, carbonate, and silicate, also occur in the eastern lead regions. At Perry's mine, at Mount Hope mine (in township 36, range 33, sections 4 and 7), and at a locality near Potosi, these ores exist in some considerable quantities; but little has been done to test the value of the ores of zinc in these and other localities in the State.

Probably the largest deposit of calamine thus far found in the State, is in Taney county.

COBALT AND NICKEL.

Ores of these metals obtained in some considerable quantities in Mine LaMotte, and small quantities have been discovered in other localities.

MANGANESE.

The peroxide of manganese exists in small quantities in the second sandstone on the plank-road west of Ste. Genevieve, and at Buford's ore-bank.

SILVER.

Silver has not been discovered in the State, save in small quantities in the sulphuret of lead.

GOLD.

Gold has been found in very small quantities in a few places in the State, but it is doubtful whether any of the localities will pay for working them.

BUILDING MATERIAL.

The possession of materials for the construction of habitations is one of the first necessities of the human race; and as the race advances in civilization and wealth, the demand for the more beautiful and durable qualities constantly increases, and it

becomes a matter of no small importance to determine whether we are prepared to supply the demand which our advancement will create for dwellings, warehouses, and public edifices.

Our examinations in Missouri prove the existence of such materials in nearly every formation in the State. Limestones, suitable for building purposes, are abundant in the upper and middle coal series, in the St. Louis limestone, the Archimedes limestone, the Encrinital limestone, the Chouteau limestone, the Onondaga limestone, the Cape Girardeau limestone, the Trenton limestone, and the second, third, and fourth Magnesian limestones.

All these formations are more or less employed in the places where they are exposed. Numbers one and six of the upper coal series furnish the rock used in the Presbyterian church, and the public house erected by Mr. Park, at Parkville, and in the public buildings at Fort Leavenworth, all of which indicate their durability and beauty; and the ease with which it is wrought into any desirable form renders it a very economical building material. Number forty-one of middle coal series is a light gray semi-crystalline limestone, which is both durable and beautiful. It is used at Lexington.

The St. Louis limestone has many beds of excellent rock, which are extensively quarried and employed for various purposes in St. Louis county. The Archimedes beds furnish a great amount of very durable limestone. It is used for the custom-house in St. Louis. The Encrinital strata are more extensively employed for economical purposes than any other limestone in the State. The State-university and the court-house at Columbia furnish abundant proof of its adaptation to building purposes. The upper beds of Trenton limestone, and the dark compact and the light magnesian strata in the lower part, are very desirable building stones, but the middle beds are not so durable; still they are sometimes used. The court-house in St. Louis presents good examples of the Trenton limestone.

The strata of cotton rock so abundant in the Magnesian limestones are much used. The state-house, court-house, and many other buildings at Jefferson City, show the adaptation of this limestone to such purposes. This is the same as the buff limestone imported into St. Louis from Illinois for houses. This rock is equally good at many localities in our own State. These formations also contain numerous beds of the silicious and the magnesian crystalline varieties, which are much stronger and more durable than the cotton rock.

MARBLES.

There are several beds of excellent marble in the State.

The fourth division of Encrinital limestone is a white, coarse-grained, crystalline marble, of great durability. It crops out in several places in Marion county. One of the best localities is in the bluffs of the Mississippi, between McFarlin's branch and the Fabius. The Lithograph limestone would furnish a hard, fine-grained, bluish-drab marble that would contrast finely with white varieties in tesselated pavements for halls and courts.

The Cooper marble of the Onondaga limestone has numerous pellucid crystals of calcareous spar disseminated through a drab, or bluish-drab, fine, compact base. It exists in great quantities on the LaMine, in Cooper, and on See's creek, and in other places in Marion; and it is admirably adapted to many ornamental uses.

McPherson's marble, a bed of the Trenton limestone, situated in the vicinity of Rattlesnake creek, is a hard, light-colored, compact limestone, intersected with variegated surface. When well polished, it appears to be strong and durable. McPherson's marble block, on Fourth street, St. Louis, is constructed of it.

Cape Girardeau marble is also a part of the Trenton limestone, located near Cape Girardeau. It is nearly white, strong and durable. There are several beds of very excellent marble in the magnesian limestone series. In sections thirty-four and thirty-five of township thirty-four, range three east, are several beds of semi-crystalline light-colored marbles, beautifully clouded with buff and flesh colors. They

receive a fine polish, are durable and well fitted for many varieties of ornamental work and building purposes. But one of the most desirable of the Missouri marbles is in the third magnesian limestone, on the Niangua. It is a fine-grained, crystalline, silico-magnesian limestone, of a light-drab, slightly tinged with peach-blossom and beautifully clouded with the same hue or flesh-color. It is twenty feet thick, and crops out in the bluffs of the Niangua. This marble is rarely surpassed in the qualities which fit it for ornamental architecture.

There are, also, several other beds in this and the other magnesian limestones, which are excellent marbles. Some are plain, while others are so clouded as to present the appearance of breccias.

The beautiful Ozark marbles are well known. Some of them have been used in ornamenting the capitol at Washington.

GRANITE.

Granite Knob will furnish any amount of a superior coarse granite, admirably well adapted to all structures where durability and strength are desirable. Its introduction to general use in St. Louis would add much to the architectural effects produced by her public and private edifices.

BRICK.

The pipe-clay and sands of the drift will furnish a large amount of the very best materials suitable for manufacturing the most durable and beautiful bricks. The argillaceous portions of the Bluff make a very good article. It is generally diffused, and is almost universally employed for that purpose. Nearly every township in the State has an abundance of these clays.

FIRE-BRICKS

Are manufactured from the fire-clays of the lower coal series in St. Louis county. These bricks have the reputation of possessing fine refractory properties. There are many beds of fire-clay in the coal measures; and besides, some beds of the Hudson river group in Ralls and Pike counties, of the Hamilton group in Pike and Marion, and of the vermicular sandstone and shales on North river, seem to possess all the qualities of the very best fire-clays. The quantity of these clays is great, almost beyond computation. No possible demand could exhaust them.

FIRE-ROCK

Has often been observed. Some of the more silicious beds of the coal measures are very refractory, as many have discovered. The upper strata of the ferruginous sandstones, some arenaceous beds of the encrinital limestone, the upper part of the Chouteau limestone, and the fine-grained impure beds of the magnesian limestones, all possess qualities which will enable them to withstand the action of fire. But the second and third sandstones are the most refractory rocks yet examined. They are used in the furnaces at Iron Mountain and Pilot Knob.

PAINTS.

There are several beds of purple shales in the coal measures which seem to possess the properties requisite for paints used in outside work. Numbers ten, thirty-one, and fifty, of this formation, have shades of a bright purple color, and a firm texture; but number ten possesses the best qualities. Yellow and red ochres are found in considerable quantities.

CEMENTS.

All of the limestone formations in the State, from the coal measures to the fourth magnesian, have more or less strata of very nearly pure carbonate of lime, which will consequently make good quick-lime. But few, if any, of the States have such an abundance and so general a distribution of this important article of domestic use.

HYDRAULIC CEMENT.

All the limestones whose physical characters indicated hydraulic properties have been collected, and some of them subjected to analysis. So far as can be judged from the results obtained, we have many beds possessing hydraulic properties.

The middle beds of the vermicular sandstone and shales are hydraulic, as indicated by the analysis.

The upper beds of the lithographic limestones come in this class.

The analysis and description show good hydraulic properties in the Cape Girardeau limestone.

Several beds in the magnesian limestone formations are hydraulic.

The upper division of the Chouteau limestone formation, as it is developed in Boone, Cooper, and Moniteau counties, gives the best indications of excellent hydraulic properties both in its texture and composition. These very much resemble the hydraulic strata at Louisville, and they would furnish any desirable quantity.

The upper and lower beds of the Hudson river group give good evidence of being hydraulic.

From present indications, the hydraulic limestones of our State may be expected to supply the home demand and furnish large quantities for exportation.

ROAD MATERIALS.

In a country where the superficial deposits make such bad roads, it is a matter of no small importance to have an abundance of good materials for highways. The limestones, so abundant in the country, are much used for macadamized roads. But the rapid pulverization of lime-rock, and the consequent mud and dust, particularly in towns and cities, render it very desirable to point out a more durable and economical substitute. The coarse gravels of the Boulder formation, and of the river-beds, furnish an abundance of the best possible substitute. These deposits contain gravels of any degree of fineness—from the sand, suited to formation of footpaths, to the best pebbles adapted to carriageways. Any amount of any given coarseness may be obtained by screening, in all parts of the country, either from the drift or the river-beds.

These pebbles have the advantage of limestone in several particulars: *First*—They are more durable, being fragments of chert and the harder igneous and crystalline rocks, which have withstood the action of those unknown but all-powerful causes which have worn away and ground to dust so large a portion of our superficial rocks, and transported to our territory such quantities of the rocks *in situ* several hundred miles to the north. Those from the river-beds, also, have been exposed to aqueous action for unknown ages. *Second*—They are less injurious to animals and carriages, as all the pebbles are water-worn and rounded. *Third*—By their use we should avoid the impalpable dust of the limestone, so injurious to health and property in our cities. We should also escape much of the mud, which is scarcely less objectionable.

SOILS.

The soil of a country is the great source of national prosperity and power and individual wealth and happiness. Adam commenced its cultivation in Eden, and his successors on the earth have ever found its culture their most useful and delightful employment.

No department of agricultural science is more defective than the classification and nomenclature of soils. No system has been adopted by which the many varieties of soils can be so arranged and described that all can be readily identified. This state of the case is due, doubtless, to two principal causes: First, the varieties of soils pass into each other by such an infinite number of graduations that it is well-nigh impossible to point out any definite lines of separation; second, farmers have been so averse to scientific names which are definite, that writers on the subject have used the indefi-

nite terms generally employed—often, too, in a sense entirely different from their common signification among farmers, thus creating a confusion of names.

I shall therefore describe the principal varieties of soils under the names commonly applied to them, as I have learned them from the farmers in the various parts of the State. Some will be disappointed in not finding their favorite names, as the same soil is known by different names in different regions of the country; and as the varieties are so numerous that it will be impossible to enumerate all in the limits assigned to this article, the most important and marked varieties only will be described.

In the popular nomenclature we have some very general names, which are very definite when considered in some of their relations, as *timbered lands* and *prairie lands*. These names distinctly mark the soils in the timber and those on the prairie, but do not indicate the quality of the soils any further than they are produced by those relations. To the same class of names belong *bottom lands* and *uplands*, sometimes called *bluff lands*. These terms, like those named above, point out an important natural division of our soils, though they have no reference to the fertility of those in either division.

Prairie lands are well defined by nature, and distinct from timbered lands in respect to the vegetation they naturally produce. The latter produce trees and shrubs, and some grasses and other herbaceous plants; and the former produce grasses and other herbaceous plants only. But each division contains soils of all grades of productiveness, from the very best to the poorest. And yet the timbered lands have one marked advantage over the prairie. If two soils be taken side by side, both based upon the same formation and both subject to the same influences during their formation, save one has produced trees and the other grasses, and the trees have decayed on the one and the grasses have been burned on the other, the former will have more decaying vegetable matter, and will be lighter, warmer, and more kindly in cultivation. But if both be put under the same culture, this difference will gradually disappear, as the vegetable matter will decrease in one and increase in the other. This difference in these classes of soils rendered the timbered lands much more popular among the old settlers.

These *prairie lands* occupy nearly one-half of the entire area of the State (as previously shown), or about 30,000 square miles. They possess all the varieties of soils found in the timber, and are identical with them, save in the difference above named.

The grasses are as diversified, and as distinctly mark the varieties of soil on the prairies, as do the trees in the timber. The resin-weed, crow-foot, and wild sorghum, indicate as good soils on the prairies as do the elm, hickory, and walnut, in the timber. But, as the trees are more conspicuous and better known, the varieties of soils are best known by the timber they produce.

Bottom lands is a term generally used to designate the lands lying in the broad, level valleys of our streams. They are divided into *bottom timber* and *bottom prairie*.

The *bottom prairie* is usually a light, rich, and very productive soil, and the surface is usually very level, and sustains a heavy growth of grasses. This soil is but little affected by wet or dry seasons. It seldom fails of yielding the very best crops of hemp, corn, tobacco, wheat, and other staples. Very good samples of this soil may be seen on Bowling Green and Wyaconda prairies, on the Missouri.

There are a few areas of considerable extent occupied by the bottom prairie on the Mississippi, as in St. Charles and Marion counties. There are but few below St. Louis. There is but little of it on the Missouri below Glasgow, but above that city nearly one-half of the broad bottoms are prairie; some of them twenty to thirty miles long and six to twenty miles wide, as the glorious Wyaconda and the Huppan Cuty.

This variety of soil covers at least 1,000,000 acres in the bottoms of our two great rivers.

It is not surpassed by any country in ease of cultivation and never-failing abundant crops of the great staples of the country.

The bottom prairies are constantly decreasing by the action of the rivers, the encroachments of the timber, and by cultivation.

Alluvial bottom and *bottom timber* are terms given to the timbered portions of our river bottoms. There are several varieties of bottom lands which are usually designated by the terms *high bottom*, *low bottom*, *wet bottom*, *swamp*, and *cypress*.

High bottoms have light, deep, porous, silicious soils, which produce a magnificent growth of white, red, and whahoo elms; sugar maple, ash, cherry, locust, linden, coffee-tree, black and sweet gum, buckeye, crab-apple; bur, red, black, laurel, scarlet, Spanish, swamp, white, and rock-chestnut oaks; dogwood, thick shellbark and pignut hickories; hackberry, persimmon, redbud, black and white walnuts; plum, pecan, holly, mulberry, papaw, prairie rose, strawberry bush; river, frost, and muscadine grapes; trumpet and Virginia creepers; poison ivy, wistaria, and staff tree.

It covers all the high bottoms of our rivers, an area of at least 5,000,000 acres. It is one of our best and most productive soils. It is so light and porous that it is very little affected by wet or dry seasons, and the crops seldom fail upon it. These lands are above the ordinary high waters.

Low bottoms have soil similar to the high bottoms, but so low that they are covered by the ordinary overflows. Sycamore, cottonwood, white maple, box elder, red birch, buckeye, hackberry, willow, river and frost grapes, and poison ivy, are the most common productions. They grow to vast proportions.

The overflows render these lands nearly useless for farming purposes; but when the floods are kept out by levees, they are most productive and valuable. There are large areas of these lands in south-east Missouri.

Swamp, or *wet bottom*, are terms usually applied to a variety of bottom lands very similar to the two preceding, but differ in being so located as to be saturated with or nearly covered by water. This excess of water renders them useless for ordinary cultivation. They sustain a heavy growth of pin, bur, swamp, white, laurel, black, and red oaks; plum, holly, spice-bush, white and black ash, red birch, box elder, button-bush, sycamore, cottonwood, coffee-tree, dogwood, red and whahoo elms, sweet gum, thick shellbark hickory, Judas-tree, hornbeam, water locust, white and red maple, papaw, staff tree, crossvine, poison oak, frost and river grape.

Cypress—This name is given to low bottoms which are covered with standing water for a large part of the year. The decomposition of vegetable matter in these waters adds a new deposit of vegetable mould annually to their rich soil, which sustains a very heavy growth of cypress, tupelo, sour gum, ilex, white ash, box elder, sycamore, button-bush, red and whahoo elms, hackberry, water locust, white and red maple, sweet gum, sassafras, willows; laurel, pin, and Spanish oaks; papaw, cottonwood, blackthorn, trumpet-creeper, rattan vine, and poison oak.

These cypresses are numerous and very extensive in south-east Missouri. Buffalo Cypress and Honey Cypress are good samples. The central and wettest portions of them usually have deposits of bog ore. These soils are useless for ordinary farming purposes.

The uplands have a greater variety of soils, some of which have received names derived from the trees they produce; as hackberry lands, hickory lands, white-oak lands, black-jack lands, and pine lands.

Hackberry lands possess the best upland soils in the State. The growth is hackberry, American elm, wild cherry, redbud, papaw, honey locust, pignut hickory, coffee-tree; swamp, white, and chestnut oaks; black and white walnut, mulberry, linden; river and summer grapes.

This soil is prevalent in Jackson, Buchanan, Lafayette, Cass, Saline, Clay, Platte, Ray, Chariton, and other counties. Where the subsoil is more argillaceous, this is somewhat inferior; as in parts of Marion, Howard, Pike, Boone, Carroll, Andrews, Bates, St. Louis, and many of the western and eastern counties.

This soil is also called *hemp land*, and when on the prairie it is known as *resin-weed*

land and *crow-foot land*. It yields superior crops of hemp, tobacco, corn, wheat, and the other staples of the country. Fruits of all kinds do well upon it.

Hickory land has a soil inferior to the last. Common and shellbark hickory; white, black, scarlet, chestnut, and laurel oaks; sugar maple, blue ash, black gum, mulberry, honey locust, black walnut, papaw, redbud, persimmon, dogwood, red and black haws, linden, summer and frost grapes, grow upon it. This soil covers a large area in central and southern Missouri, yields good crops of the staples of the country, and is well adapted to fruit culture.

There is a soil based upon the red clays of southern Missouri nearly similar to this in fertility and productions.

White-oak lands occupy ridges and hills where the soils are inferior to the last variety. The growth is white, black, and scarlet oak; shellbark hickory, dogwood, sassafras, redbud, sumach, blueberry, and summer grape.

Nearly all the poor lands north of the Missouri belong to this variety of soil. On the south side of the river, the same quantity of soil, or one rather inferior, is called post-oak lands. It occupies the same positions and sustains the same growth, with post oak for the principal tree.

The *white-oak* and *post-oak lands* cover large areas, and, under good cultivation, yield good crops of corn, wheat, rye, oats, tobacco, and hay. The subsoil is usually richer than the surface, and deep plowing makes a vast difference in their productive powers. These lands are very superior for fruit culture, and cover many millions of acres in southern Missouri, and smaller areas in the northern.

Black-jack lands are the poorest of all. They occupy poor, rocky, or sandy ridges and hills, and sustain a stunted growth of black-jacks, black hickory, and summer grapes. These lands have but little value for ordinary culture, but may be made profitable in fruit culture. *Black-jack ridges* occupy considerable areas south of the Missouri, and very limited ones on the north.

Pine lands have a sandy soil, and occupy the plateaus, ridges, and hills, underlaid by the sandstones of the magnesian limestone series. The timber is pine; post, white, and black oaks; black hickory, dogwood, sassafras, and summer grape, and sometimes other trees and vines. It covers large areas in southern Missouri.

Magnesian limestone soils are dark, warm, light, and very productive; but they are often so situated on hillsides and in narrow valleys as to be inconvenient for ordinary tillage. They produce black and white walnuts, black gum, white and whahoo elms, sugar maple, honey locust, mulberry; white rock-chestnut, chestnut, post, laurel, black, scarlet, and Spanish oaks; persimmon, redbud, sassafras, blue ash; common, shellbark, and bitternut hickory; buckeye, hazel, sumach, dogwood; summer, river, and frost grape.

This variety of soil covers the hillsides, slopes, and narrow valleys of all the country underlaid by the magnesian limestone series, extending from Callaway south to the Arkansas, and from Jefferson west to Polk county, an area of some twenty thousand square miles.

This area includes the Osage, the southern and south-eastern mineral regions, and all the country connecting them.

This is one of the most fertile soils in the State, and produces excellent crops of all the staples of the country, but it is peculiarly adapted to the culture of the grape and other fruits. The fruit-trees and vines upon this soil are thrifty and productive. The broken nature of the country, and the flints often mingled with this soil, render it more difficult of cultivation; but its superior fertility and peculiar fitness to the grape and other fruit will induce cultivators to overcome these objections when its great value is better known. The time is not far distant when these hillsides and ridges of this sunny and temperate and beautiful region will be covered with vineyards, and the songs of the vine-dresser and the merry vintage will make its teeming thousands prosperous, temperate, healthful, and happy.

These lands, together with the post-oak and pine lands which cover the ridges,

plateaus, and hillsides of the mining regions, will enable those favored sections to sustain a large agricultural population, in addition to the large mining population which will be drawn to it by the inexhaustible mineral deposit.

NATIVE PASTURES.

Nearly one-half of the State is occupied by broad, rich prairies, which produce abundant crops of native grasses, which rival the cultivated species in luxuriance and nourishing properties. The young prairie grasses are scarcely inferior to the famous blue grass for pasturage, and, when cut before the seed is ripe, are equal to timothy and clover for hay. This is proved by the fact that in the prairie regions of our State, and westward, good prairie hay brings as good prices as that from the cultivated grasses. These grasses are not confined to the open prairie, but grow luxuriantly on the ridges and hillsides of the upland forests in all southern Missouri.

Canebrakes are abundant in the rich bottoms of the southern counties, especially those of the south-east. The cane is evergreen, and furnishes most excellent pastures during the entire year. In the winter its dense foliage affords the very best shelter, as well as food, for the stock in these favorite grazing regions.

Pea-vines are also very abundant in the timbered bottoms of the State, and furnish very attractive and nourishing winter pastures.

The fruit of the numerous species of oak, hickory, walnut, pecan, beech, and hazel, usually furnish a large supply of food most grateful to swine, turkeys, and other mast-eating animals.

These facts, together with the abundance of pure water, render Missouri, particularly the southern part, a most favored grazing region. The temperate summers, and the short, dry, and mild winters, enable horses, mules, neat cattle, sheep, goats, and swine, to live and thrive upon our native pastures with little or no extra food and small care from the herdsman.

TREES, SHRUBS, AND VINES OF MISSOURI.

BY G. C. SWALLOW.

[From the unpublished notes of the Geological Survey.]

ALDER.

Alnus serulata (Common Alder).—On streams. The charcoal of this alder is much used for the manufacture of gunpowder.

Prinos (Ilex) laevigatus (Black Alder, Winter Berry).—In damp woods. Its red berries render this, and perhaps two other species, conspicuous in our winter forests.

APPLE.

Malus coronaria (Crab Apple).—On borders of prairies and fields, and in open forests. Ornamental. The most beautiful shrub of our prairie borders and forest glades.

ASH.

Fraxinus Americana (White Ash).—Excellent timber for carriages and wagons.

Fraxinus quadrangulata (Blue Ash).—Rich soil.

Fraxinus sambucifolia (Black Ash).—Rare. This timber is used for baskets and chair-bottoms.

Zanthoxylum Americanum (Prickly Ash).—In rich, moist soils. Medicinal.

AZALEA.

Azalea nudiflora (?) (Mountain Honeysuckle).—A beautiful shrub in the mountains of Madison county.

ASPEN. (*See Cottonwood.*)

BASSWOOD.

Tilia Americana (American Linden, or Lime).—In rich soils, on upland and in bottoms.

Tilia heterophylla (?) (Large-leaved Lime, or Linden).—In rich soils. Linden is used for carriages and cabinet-work. It is also used for inside work in building.

BEECH.

Fagus ferruginea (American Beech).—The wood is hard and strong, and suitable for plane stocks and other implements. In good soil in south-east Missouri.*

BIRCH.

Betula rubra (Red Birch—River Birch).—On the overflowed banks of streams, with Willows, Cottonwood, and Sycamores. Its timber is beautiful, and suitable for various kinds of cabinet-work. It makes an excellent charcoal.

BLACKBERRY.

Rubus villosus (High Blackberry).—Borders of thickets and fence-rows. Its fruit is excellent and abundant.

Rubus cuneifolius (?) (Wedge-leaved, or Sand Blackberry).—Fruit very good.

Rubus trivialis (Low-bush Blackberry, or Dewberry).—Large, delicious fruit. The wild species of blackberry are common and yield an abundance of excellent fruit. The Lawton and Dorchester are cultivated with great success in the State.

BLADDER-NUT.

Staphylea trifolia (Bladder-Nut).—Common on banks and rocky slopes. The showy, pendent racemes of white flowers and bladder-like seed-vessels render this shrub ornamental and unique.

BURNING BUSH.

Euonymus atropurpureus (Whahoo, Arrow Wood, Burning Bush).—This is a common and beautiful shrub. In autumn the crimson seeds hang like pendent jewels from the scarlet calyx, and the leaves change to a deep-bright crimson. It renders the autumnal thickets rich and gay.

Euonymus Americana (Strawberry Bush).—Common in the swamp region of south-east Missouri, where it grows in the forests. The scarlet seeds suspended below the crimson pod, ornamented with dark papillæ, render this shrub more beautiful than the preceding. Its name comes from the beautiful seed-vessel, which so much resembles some varieties of the strawberry. Many of our nurserymen sell the Burning Bush for the Strawberry Bush.

BUTTON BUSH.

Cephalanthus occidentalis (Button Bush).—Common in wet places. Its numerous globular heads of white flowers render it ornamental.

BUTTONWOOD.

Platanus occidentalis (Sycamore, American Plane Tree, Buttonwood).—This is the largest of all our forest trees. It is abundant on the overflowed margins of our

* Where no locality is given, the tree is generally diffused where the soil is suitable.

streams. The wood resembles the maple in general appearances, and has been used for some varieties of common furniture. It warps in seasoning more than any common lumber.

BUCKEYE.

Æsculus flava (Large Buckeye).—This tree is common in our river bottoms, and it often grows in rich, moist uplands. It is conspicuous in spring for its early, rich foliage, and its numerous large, showy thyrses of yellow flowers. But few trees are more magnificently beautiful than the large buckeye, covered with its rich green foliage and large, upright panicles of bright flowers. It is scarcely inferior to its oriental cousin, the Horse Chestnut, from the Levant.

Æsculus glabra (?) (Ohio Buckeye).—A small tree and not so showy as the last.

BLUEBERRY.

Vaccinium.—Several species (?), common on mountains, and dry, rocky hills. The fruit is not so large or abundant as in the Northern States.

BOX ELDER.

Negundo aceroides (Box Elder or Ash-leaved Maple).—It grows in the bottoms, and sometimes on rich uplands. The wood is fine-grained, saffron-colored, and shaded with violet. In Europe it is used in cabinet-work, particularly for inlaying. The wood is beautiful, and might be made useful for such purposes in this State.

BUCKTHORN.

Rhamnus lanceolatus (American Buckthorn).—Hillsides and river-banks.

BUMELIA.

Bumelia lanuginosa (Bumelia).—It grows near St. Louis; one species is very common on the glades over the magnesian limestones, in the southern part of the State. Its spines and branching habit might make it a good hedge plant.

Bumelia oblongifolia (Oblong-leaved Bumelia).—Common in rocky glades in southern Missouri.

CATALPA.

Catalpa bignonioides (Catalpa, or Indian Bean.—This magnificent tree is common in the bottom lands of south-east Missouri. The trees on the open banks of the Mississippi are small, crooked, straggling, and picturesque; but in the forests they are large, upright, and often three and four feet in diameter and seventy or eighty feet high. The timber is very durable. Many of the trees in the New Madrid country, which were killed by the earthquake of 1811, are still standing and quite sound. These dead trees are much used for canoes and other purposes where light and durable timber is desirable. The broad leaves and large conical thyrses of white and purple flowers render this one of the most beautiful and magnificent trees of the American forest. In its peculiar style of grand beauty it is scarcely inferior to the magnificent Pawlonia. It grows rapidly and is easily propagated by seed.

CHERRY.

Cerasus serotina (Wild Cherry, Black Cherry).—This tree is common on rich soils. It is a beautiful tree when covered with its numerous racemes of white flowers. The wood is fine, hard, and reddish, or nearly the color of mahogany. It takes a fine polish, and is much used in cabinet-work and for gunstocks.

Cerasus Virginiana (Choke Cherry).—This shrub is very rare, in the northern part of the State only.

CEDAR.

Juniperus Virginiana (Red Cedar, or Savin).—Common on the rocky bluffs of our streams, where it often grows to the hight of forty or fifty feet. The wood is fine-grained, light, highly-colored, much used for fence and telegraph posts, pails and tubs, and all purposes where light and durable timber is needed.

Large quantities of it are now being cut and shipped from this State to Europe, for the manufacture of pencils. This tree is much cultivated as an ornamental evergreen. Its fruit is medicinal. The twigs often have brown excrescences, which send forth long, gelatinous, orange-colored threads in wet weather. They are the seed-vessels of a minute fungus—*podisoma macropus*.

CANE.

Arundinaria macrosperma (Cane).—This singular plant is very abundant in south-east Missouri, where it forms dense canebrakes. When small it makes most excellent winter pastures. Animals thrive better in these cane pastures in the winter than in the summer, as there are no insects to trouble them.

The ancient mound-builders used the canes (split), as we do laths, in plastering rooms in their houses or mounds. Large quantities of them are now used for fishing-rods and pipe-stems.

CHESTNUT.

Castanea vesca (Chestnut).—I have observed this tree in but one place in the State: on Bird's Island—a high, round, rocky hill in the "swamp" of south-east Missouri.

COFFEE-TREE.

Gymnocladus Canadensis (Coffee-Tree).—Common in rich, moist soils, both bottom and upland. Its wood is hard, tough, compact, and rose-colored; beautiful for cabinet-work.

CORAL-BERRY.

Symphoricarpus vulgaris (Indian Currant, Coral-Berry).—This small, beautiful shrub is very common, and often troublesome to the husbandman. It has numerous clusters of purple berries, which usually remain on the most of the winter. The fruit is not so large as that of its white sister, the snowberry.

COTTONWOOD.

Populus angulata (Angled Cottonwood, or Carolina Poplar).—A large tree, similar to and associated with the following:

Populus monilifera (Canadensis of Mx., Cottonwood).—This is one of our largest forest trees, and grows abundant on our rich overflowed bottoms. Its timber is valuable for rails and carpentry.

Populus heterophylla (Argentea Mx., Cotton-Tree, or Downy-leaved Poplar).—In the bottoms of south-east Missouri.

Populus grandidentata (?) (Large-toothed Aspen).—On high land in Howard county. I saw several trees in Howard similar to, if not identical with, this aspen.

Populus tremuloides (American Aspen).—In Franklin county.

Populus alba (White Poplar, Silver-leafed Poplar, Abele).—This beautiful foreign tree has in some places escaped from the hands of the cultivator and become naturalized.

CROSS-VINE.

Bignonia capriolata (Cross-Vine).—This beautiful vine grows in the swamps of south-east Missouri, where it climbs the highest trees.

CURRANT.

Ribes ——. One or two species have been observed in the State; very rare.

CYPRESS.

Taxodium distichum (American Cypress).—Common in the swamp country of south-east Missouri. The wood is soft, light, and durable. It is much used for carpentry and parts of cabinet-work, and especially for shingles and weather-boards. It is one of the largest and finest trees of the forest.

DOGWOOD.

Cornus florida (Flowering Dogwood).—This beautiful species is very common, and its large flowers are very conspicuous in the spring.

Cornus sericea (Silky Cornel, Kinni-kinnik).—Common on the borders of streams.

Cornus asperifolia (Rough-leafed Dogwood).—In dry, rather poor soils.

Cornus paniculata (Panicled Cornel).—In thickets in moist rich soils, usually water.

ELDER.

Sambucus Canadensis (Common Elder).—In low, rich ground. This is a beautiful shrub when its broad, flat, white cymes are in bloom, or when its purple fruit is ripe. The berries are used for wine, and its flowers for a domestic medicine.

ELM.

Ulmus Americana (White Elm, American Elm).—Abundant in deep, rich soils. This is the most desirable of all our shade-trees. It grows large and gracefully magnificent. The wood is tough and used for hubs of light carriages.

Ulmus fulva (Red Elm, Slippery Elm).—Very abundant in moist, rich soils. The wood is more highly colored and superior to that of the white elm. Its inner bark yields a most valuable and popular medicine.

Ulmus alata (Winged Elm, or Whahoo).—This curious tree is common in the southern part of the State. I have never seen it north of the Missouri river.

Ulmus racemosa (Thomas' Elm).—A few small trees only were observed in this State.

FALSE INDIGO.

Amorpha fruticosa (False Indigo, Prairie Locust).—This beautiful shrub is common in the rocky beds of branches, especially in the prairies. Its pinnate leaves, similar to those of the locust, and its abundance in the prairies, have given it the common local name, "Prairie Locust." Its long spikes of purple flowers and beautiful foliage render this little shrub highly ornamental to the rough places it is made to adorn.

Amorpha canescens (Lead Plant).—Common on dry, rocky hills in the southern part of the State. Not so abundant north. This small shrub has been considered a good sign of lead, but no intelligent miner relies upon it.

GRAPE.

Vitis æstivalis (Summer Grape).—Common on dry, rocky slopes and ridges. This is usually a small vine, but in rich soils it becomes very large and climbs to the tops of the highest forest trees. It is one of the largest wild grapes in the State. The berry is mild and pleasant, and is often used for wine.

Vitis riparia (River Grape).—The vine is abundant in the rich alluvial bottoms on the borders of our streams, where it grows very large, climbs to the tops of the highest trees, and mingles its clusters with their foliage. There are many varieties between this and the *æstivalis*. Some vines have the thick leaves of the summer grape and the small sour fruit of the *riparia*. The clusters of the summer grape are often short and cylindrical, without shoulders.

Vitis cordifolia (Winter Grape, Frost Grape).—This grape is also common on rich, moist soils, and often grows very large. There are many varieties between this and the river grape.

Vitis vulpina (Muscadine, Southern Fox Grape).—I observed this vine only in the high portions of the swamp country of south-east Missouri. My attention was first called to it by Dr. Horner, of Dunklin county, where we measured a vine nine inches in circumference and one hundred and thirteen feet high.

Vitis rupestris (Texas Grape, Rock Grape).—I observed this peculiar vine in several places in the rocky beds of "dry branches" in Franklin county. Its fruit is nearly as large as the summer grape, in small clusters. It ripens before the summer grape, in August. It does not climb like other grapes, but runs along the dry beds of the water courses, sending down roots from the joints of the canes as it progresses. Its foliage resembles that of the Clinton grape. It should be cultivated.

Vitis ——. There is a grape rarely found in this State (very abundant in Kansas) which is distinct from any of the preceding. It resembles the river grape in the foliage and size and habits of the vine; but the berry is larger, in small, compact, shouldered clusters. It ripens in July. The berry is acid and filled with a purple pulp and highly-colored juice.

Vitis indivisa.—I saw this vine at the Chouteau springs, in Cooper county, and in Holt county.

Vitis bipinnata.—On the river banks in Cape Girardeau and Pemiscot counties.

GREEN BRIER.

Smilax rotundifolia (Green Brier).—In thickets. A great nuisance.

Smilax glauca.—Glaucus Green Brier.

Smilax tamnoides.—The Green Briers are so interwoven in the thickets along our streams that it is difficult to pass through them without coming in disagreeable contact with their spines.

Smilax hastata.—In south-east Missouri.

GOOSEBERRY.

Ribes cynosbati (Prickly Gooseberry).—In moist, rich land.

Ribes rotundifolium (Wild Gooseberry).—The shrub is frequently transplanted to gardens for its fruit, which is much used for tarts.

GUM.

Nyssa sylvetica (Black Gum).—Common in the good upland soils in south-east Missouri. The wood is light and not liable to split.

Liquidamber styraciflua (Sweet Gum.)—This is one of the finest forest trees of south-east Missouri. It is very large in the moist rich soils of that part of the State. The wood is fine-grained, reddish, marked with dark bands, and receives a fine polish. It is used for veneering and other cabinet work.

Nyssa aquatica (Sour Gum).—In swamps of south-east Missouri.

HACKBERRY.

Celtis occidentalis (American Nettle Tree, or Hackberry).—It grows in rich soils in all parts of the State.

Celtis crassifolia (Thick-Leaved Celtis, or Hackberry).—In rich soils. The timber of these trees is but little used, except for firewood and fences.

The European Nettle Tree, very similar to the American, is used for a great variety of purposes. In Italy and south of France it is a favorite shade tree. The wood is hard, tough, and compact, and much used for carved work, cisterns and tubs, musical instruments, carriages, etc., and the branches and shoots are extensively employed for hay-forks, whip-handles, canes, ramrods, and all similar articles; the bark for tanning, and the root for dyeing. Our tree might be equally useful.

HAZEL.

Corylus Americana (American Hazel).—In thickets on rich soils. The stems are very tough and elastic, and the fruit is excellent.

HAW.

Viburnum lentago (Black Haw).—In thickets and on the borders of streams. The fruit is good and the shrub ornamental.

RED HAW. (*See Thorn.*)

HERCULES' CLUB.

Aralia spinosa (Hercules' Club, or Angelica Tree).—This curious spiny shrub is found in Cape Girardeau county, and southward. Very ornamental.

HICKORY.

Carya tomentosa (White, Common, or Mockernut Hickory).—On good upland soil. The fruit is excellent.

Carya olivæformis (Pecan).—In rich bottoms. This is one of our largest trees. It yields an abundance of the favorite pecan nuts.

Carya sulcata (Thick Shellbark Hickory).—A large tree in rich bottoms. It produces the largest nuts of all the hickories.

Carya alba [*squamosa*] (Shellbark or Shagbark Hickory).—Common on good upland soils. It produces an abundance of excellent nuts.

Carya porcina (Pignut Hickory).—On the best soils. The nuts are small and bitter-sweet.

Carya amara (Bitternut Hickory).—In the south-west. Very rare. It has a small nut with a thin shell and bitter kernel.

Carya microcarpa (Black or Bullnut Hickory).—Common on poor ridges with black-jack oak. It has a small nut with a thin shell and bitter kernel. Hickory is one of the most popular woods for fuel. It is much used for fences, and for wagons, carriages, farming implements, and all purposes where a hard, strong timber is needed. The young trees are cut in great quantities for hoop-poles and walking-sticks. The best varieties of the timber are very abundant in all parts of the State. Charcoal from hickory is very heavy, and nearly as valuable as that from birch and alder.

HOP-TREE.

Ptelea trifoliata (Hop-Tree, or Shrubby Trefoil).—In north-east Missouri and St. Louis county.

HOP.

Humulus lupulus (Hop).—This plant is common on the borders of fields and on the banks of streams. It is very much at home for a foreign plant.

HYDRANGEA.

Hydrangea arborescens (Wild Hydrangea).—This is a very common low shrub on cool, shaded, rocky banks, near springs and streams. Ornamental.

HONEYSUCKLE.

Lonicera parviflora (Small Honeysuckle).—Common on rocky hillsides.

Lonicera grata (?) (American Woodbine).—Not so common as the last. Both are very ornamental vines.

HORNBEAM.

Ostrya Virginica (Hop Hornbeam).—This is a very common small tree on rocky hillsides and on the borders of streams. The wood is hard, firm-grained, and strong.

Carpinus Americana (American Hornbeam, or Ironwood).—On borders of streams and thickets. Rather rare.

HOLLY.

Ilex opaca (American Holly).—This beautiful and showy evergreen is very rare in the State. I have observed it in but one locality in Cooper county. Highly ornamental. It grows in the south-east.

Ilex decidua.—This species of Holly grows in the rich, moist bottom lands.

ITEA.

Itea Virginica (Itea).—I noticed this in Pike county.

IRONWOOD. (*See Hornbeam.*)

JUDAS-TREE.

Circis Canadensis (Judas-Tree, or Redbud).—This beautiful little tree grows everywhere in this State.

LINDEN. (*See Basswood.*)

LOCUST.

Gleditschia triacanthos (Honey Locust).—Common in rich soils, both in the bottoms and on upland. The wood is hard, durable, and high-colored; it is used for rails and firewood only, but it might be made useful in many kinds of cabinet-work.

Gleditschia monosperma (Water Locust).—In the swamps of south-east Missouri. This tree is similar to but not so large as honey locust. I am not aware that the wood has been put to any mechanical use.

Robinia pseudo acacia (Common Locust).—This beautiful tree is generally cultivated throughout the State as a shade-tree. It appears to be a native in many localities. The wood is hard, strong, and durable. It is very useful wherever hardness, durability, and strength, are desired.

LEAD PLANT. (*See False Indigo.*)

MAPLE.

Acer dascycarpum (White or Silver Maple).—This beautiful tree is common on the banks of streams, where it usually leans over the water. This tree is easily cultivated. It grows rapidly and makes a fine, clean shade tree. The wood is white and soft, and perishable.

Acer rubrum (Red Maple, Swamp Maple).—A rare tree in Missouri, though abundant in a few localities in the south-east part. It is ornamental, and well deserves cultivation for its beauty and rapid growth. Its sap is nearly as saccharine as that of the Sugar Maple.

Acer Saccharinum (Sugar Maple, Rock Maple, and Sugar Tree).—On good, moist soils, both upland and lowland, the timber is hard, fine-grained, and strong, and is used in cabinet and other ornamental work. Its sap is rich in saccharine matter, and is much used for the manufacture of syrup and sugar, which are greatly esteemed for their peculiar delicious taste and odor.

MOON SEED.

Menispermum canadense (Moon Seed).—Common in lowlands. Ornamental.

MULBERRY.

Morus rubra (Red Mulberry).—Common on good soil, though not abundant. The red mulberry is an elegant shade tree, which produces an excellent fruit, and whose wood is hard, strong, and durable.

NINE-BARK. (*See Spiraea*).

NETTLE-TREE. (*See Hackberry*).

OAK.

First division—Leaves lobed, lobes rounded.

Quercus alba (White Oak).—Common and abundant on the poor ridge soils. It is a noble tree, and one much esteemed for its strong, durable timber, which is much used for fences, buildings, and agricultural implements.

Quercus obtusiloba (Post Oak).—This oak is common on the poorer ridges, where it is never so tall as the white oak. Its timber is much sought for for all purposes where strong, durable wood is needed. It is much used for railroad ties.

Quercus macrocarpa (Bur Oak, Over-cup Oak).—In low, rich soils; timber large and excellent.

Second division—Leaves coarsely toothed.

Quercus bicolor (Swamp White Oak).—In rich soils.

Quercus prinus (Chestnut White Oak).—In rich bottom lands.

Quercus monticola (Rock Chestnut Oak).—On dry, rocky soils.

Quercus accuminata (Chestnut Oak or Yellow Oak).—On rocky ridges and bluffs.

Quercus prinoides (Dwarf Chestnut Oak, or Chinquapin).—On rocky hillsides, particularly in the south-west.

Third division—Leaves entire.

Quercus imbricaria (Laurel Oak, sometimes erroneously called Pin Oak).—Common on the rich borders of prairies and near water-courses. It is usually a small tree. Its timber is but little used.

Quercus phellos (Willow Oak).—In the rich bottoms of south-east Missouri.

Fourth division—Leaves lobed and lobes mucronate.

Quercus heterophylla (Bartram's Oak).—In several localities in Cooper and Pettis counties. The trees very fully agree with the descriptions of Michau.

Quercus tinctoria (Black Oak).—On upland soils. The timber of this noble tree is strong and durable; its inner bark furnishes the quercitron of the dyers.

Quercus coccinea (Scarlet Oak).—On good soils. This oak derives its name from the deep-scarlet color assumed by its leaves in the fall, after frost. This tree is usually called Black Oak in Missouri. It grows with white and black oaks and shellbark hickory, on upland soil.

Quercus rubra (Red Oak).—This tree is not so abundant as some other species of the oak. It grows on damp, rich soils.

Quercus palustris (Pin Oak, Swamp Oak).—In low, wet lands.

Quercus falcata (Spanish Oak).—In good soils, but rather rare.

Quercus ambigua (Gray Oak).—Rare in the central counties.

Quercus nigra (Black-jack Oak).—On the poorest soils in the State, with black hickory. Used for firewood.

Some one or more of the foregoing species of oak is found in every forest in the State. The trees grow very large, and will furnish an almost inexhaustible supply of superior timber for many succeeding generations. The oak furnishes nearly all

the rails and lumber used for frames, weather-boarding, boards and shingles of wooden buildings.

OSAGE ORANGE.

Maclura aurantica (Osage Orange).—I saw this tree in the valley of Spring river, Newton county, which appeared to be a native growth.

PAPAW.

Asimina triloba (Papaw).—In rich, moist soils. The large purple flowers, long leaves, and large, rich fruit, render this small tree singular and ornamental.

PERSIMMON.

Dyospyros Virginiana (Persimmon). Common in glades, old fields, and pastures. The fruit of this small tree is a great favorite in all parts of the State.

PINE.

Pinus mitis (Yellow Pine).—On sandy ridges in the south part of the State. The timber is excellent; much of it is cut and sent to the St. Louis market, where it is manufactured into flooring. In the pine regions it is used for all parts of wooden buildings.

PLUM.

Prunus Americana (Wild Plum).—Common on the borders of rich prairies and moist, rich bottoms. The fruit is large and good.

Prunus Chicasa (Chickasaw Plum).—Rare in southern Missouri.

POPLAR. (*See Cottonwood and Tulip-Tree.*)

PRICKLY ASH.

Zanthoxylum Americanum (Prickly Ash).—In wet places, on the borders of prairies and the banks of streams.

RATAN VINE.

Wistaria frutescens (Ratan Vine, Wistaria).—Rare in the rich bottoms of south-east Missouri. This magnificent vine, with its showy racemes of large purple flowers, is extensively cultivated, and is often erroneously called Virgin's Bower.

ROSE.

Rosa setigera (Prairie Rose).—Very showy; on the borders of rich prairies and in open forests.

Rosa lucida (Dwarf Wild Rose).—In dry prairies.

Rosa rubiginosa (Sweet Brier).—Rare, by roadsides and fields.

RASPBERRY.

Rubus strigosus (Red Raspberry).—On borders of fields and forests.

Rubus occidentalis (?) (Black Raspberry, or Thimbleberry).—I have seen a few plants like this; whether the same, I am unable to say.

STRAWBERRY BUSH. (*See Burning Bush.*)

ST. JOHN'S WORT.

Hypericum.—One beautiful shrub of this genus is common in the rocky beds of dry branches.

SPICE BUSH.

Benzoin odoriferum (?) (Spice Bush).—In rich, damp soils; ornamental.

SASSAFRAS.

Sassafras officinale (Sassafras).—This tree is common on poor soil. Medicinal. The tea made from the root is esteemed an excellent alterative in the domestic catalogue of "yarb drinks."

SUMACH.

Rhus copalina (Dwarf Sumach).—Common on the borders of prairies and fields. The leaves of this beautiful shrub are used by the Indians, with, or as a substitute for, tobacco.

Rhus glabra (Smooth Sumach).—This handsome bush grows on the borders of prairies and fields, and in thickets in open forests. The large bunches of crimson berries are very showy. They are acid, and are used for various purposes in domestic economy and medicine.

Rhus typhina (Stag's-horn Sumach).—This is the largest species of sumach. It grows in patches in rich soils, on the borders of forests, fields, and woods. The leaves and bark are used in tanning. The root is a popular remedy in fevers.

Rhus aromatica (Fragrant Sumach).—This low, straggling bush is common in dry, open forests. It is cultivated in Europe for its agreeable fragrance.

Rhus toxicodendron (Poison Ivy).—This poisonous vine is common in all parts of the State. In the rich bottoms it grows to a large size and climbs to the tops of the highest trees.

SPIRAEA.

Spiraea opulifolia (Nine-Bark).—This beautiful shrub grows common on rocky banks and bluffs and in the beds of dry branches. It is easily cultivated, and may be propagated by cuttings.

SERVICE BERRY.

Amelanchier Canadensis (Shad Bush, June Berry, June Pear, Sugar Pear, or Swamp Pyrus).—This highly-beautiful shrub is common on our rocky ridges and bluffs, where it is conspicuous in early spring for its clouds of white blossoms.

STAFF-TREE.

Celastrus scandens (Staff-Tree, Waxwork).—This highly-ornamental vine is quite common in rich, shaded soils. It climbs over rocks, fences, shrubs, and trees. The clusters of scarlet seeds, pendent from the orange capsules, are rich ornaments of the autumnal and winter forests. It is easily propagated by seeds or layers.

SYCAMORE. (*See Buttonwood.*)

THORN.

Cratægus tomentosa (Black Thorn).—In rich, wet soils. This thorn grows to a large size, and has large bunches of large white flowers and crimson berries.

Cratægus coccinea (Red Haw, or Scarlet Thorn).—Common on the borders of prairies and forest glades.

Cratægus punctata (Dotted Thorn).—This beautiful shrub is common in the same localities as the last.

Cratægus crus-galli (?) (Cockspur Thorn).—Glades and borders of prairies. This is probably our best hedge thorn.

Cratægus cordata (Washington Thorn).—This is one of our most abundant and beautiful thorns. There are, doubtless, other species in the State. They are very abundant, and make the forest glades and thickets beautiful and bright with their snowy flowers and brilliant fruit.

TUPELO.

Nyssa uniflora (*grandidentata Mx.*) (Large Tupelo).—A noble tree. In the swamps of south-east Missouri.

Nyssa capitata (?) (Sour Tupelo).—In the swamps of south-east Missouri. The wood of the tupeloes is very light and soft and hard to split. It is well adapted to the manufacture of bowls, trays and similar implements. The wood of the roots is so very light that it is used by fishermen as buoys for their nets. It furnishes the best substitutes for corks which the country affords.

TULIP-TREE.

Liriodendron tulipifera (Tulip-Tree, Poplar).—This magnificent tree grows in Cape Girardeau county, and southward, where, as in Kentucky, it is wrongly called poplar. It makes an excellent lumber for finishing work in houses, the coarser portions of cabinet-work, for carriages, etc., as it is soft, strong, hard to split, and durable. It is sold in St. Louis under the name of "Poplar." There are two varieties—one is called "yellow poplar," and the other, "white poplar."

This is one of the largest trees of the temperate zone, and when covered with its foliage and grand, showy, tulip-like flowers, it is truly a monarch of the forest clothed in regal robes. It is a worthy peer of the stately magnolia.

TRUMPET CREEPER.

Tecoma radicans (Trumpet Flower, Trumpet Creeper).—This magnificent vine is common, running over the rocks and trees on the bluffs and in the rich soils in all parts of the State. It climbs to the tops of the highest trees and mingles its large clusters of gaudy flowers with their foliage. The humming-bird is particularly fond of these flowers, as they can easily seize the numerous insects drawn into their long tubes by the honeyed juices there secreted.

VIRGINIA CREEPER.

Ampelopsis quinquefolia (Virginia Creeper, American Ivy).—This beautiful vine is common on fences, rocks, and trees in all parts of the State. It is often mistaken for the poison ivy, but any one may easily distinguish them by remembering that the leaves of the poison ivy are divided into only three, while those of this vine are divided into five. The Virginia creeper is the most ornamental of all our native vines. Nothing can be more beautiful than an old tree or stub covered with the rich foliage of this vine. In the autumn, when its leaves change to the richest crimson, it gives its rich, gorgeous colorings to every tree, bluff, and thicket over which its foliage is spread. It is easily propagated by cuttings.

VIRGIN'S BOWER.

Clematis Virginiana (Virgin's Bower).—This beautiful creeper is common on fences and thickets. It is a graceful vine, and its plumose appendages to the fruit are very beautiful and showy. It is easily propagated by cuttings or layers.

Clematis viorna (Leather Flower).—Rare, on sandy prairies. This vine has large, showy purple flowers, and is much more worthy of cultivation than many imported species of the virgin's bower.

WALNUT.

Juglans nigra (Black Walnut).—Very common on rich soil, both bottom and upland. This is one of our largest trees, and its hard, dark wood is most useful in cabinet-work and carpentry. The fruit is much esteemed.

Juglans cathartica (White Walnut, or Butternut).—In damp, rich soils on banks and

borders of streams. The timber is light-colored, hard, firm-grained, and durable. The inner bark furnishes a popular remedy, and the green fruit is much used for pickles and catsup.

WILLOW.

Salix nigra (Black Willow).—On the margins of streams.

Salix fluviatilis (?) (River Willow).—On the banks and sandbars of our great rivers.

Salix longifolia (Long-leaved Willow).—In the same localities as the last. There are several other species of willow in the State; one of them is much like the *humilis*, a dwarf species common on the prairies. The wood of the willow is but little used in this State. It makes a superior charcoal, excellent for gunpowder. The twigs are used for tying vines and making baskets, and other similar purposes. In Europe willow-wood is extensively used for carvings, and is turned into a vast variety of useful and ornamental articles.

WINTER-BERRY. (*See Alder.*)

WITCH HAZEL.

Hamamelis Virginica (White Hazel).—This curious shrub is rarely seen in moist places with the alder. It blooms late in the fall, when the leaves are falling, and ripens its fruit the next season. This plant was famous among sorcerers, and has been much used for divining-rods.

CATALOGUE,

Showing the size of some of the Trees observed in the State of Missouri.

[From the unpublished notes of the Geological Survey.]

BY G. C. SWALLOW.

NAMES.	Hight where Measured.	Circumference.	Hight.	LOCALITY AND REMARKS.
Sycamore	2 feet	43 feet	65 feet	Mississippi county, an old stub. The hollow measures inside 15½ by 13 feet.
Sycamore	2 feet	38½ feet	125 feet	Howard county.
Catalpa	6 "	10 feet	90 "	Dunklin county, used for canoes.
Cypress	1 foot	29 "	130 "	Cape Girardeau county.
Cypress	6 feet	18 "	130 "	Same tree*
Cottonwood	6 "	30 "	125 "	Mississippi county.
Pecan	6 "	18 "	130 "	Miss. county, 80 feet to limbs.
Black Walnut	2 "	22 "	110 "	Benton county.
Willow	6 "	24 "	100 "	Pemiscot county.
Tupelo	2 "	30 "	120 "	Stoddard county, }
Tupelo	6 "	9 "	120 "	Stoddard county, } same tree*
White Oak	2 "	26 "	100 "	Howard county, }
White Oak	1 foot	29 "	100 "	Same tree.
Rock Chestnut	6 feet	18 "	110 "	Mississippi county.
Chestnut Oak	2 "	20 "	100 "	Howard county.
Willow Oak	6 "	9 "	100 "	New Madrid county.
Water or Pin Oak	6 "	13½ feet	100 "	Howard county.
Water or Pin Oak	6 "	9 feet	95 "	Pemiscot county.
Bur Oak	2 "	20 "	125 "	Howard county.
Elm	6 "	22 "	100 "	Pemiscot county.
Whahoo Elm	6 "	7 "	90 "	Dunklin county.
Tulip Tree	1 foot	30 "	110 "	Cape Girardeau county.
Tulip Tree	2 feet	27 "	110 "	Same tree, 90 feet to limbs.
Sweet Gum	2 "	15 "	130 "	Cape Girardeau county.
Linden	2 "	23 "	110 "	Howard county.
Buckeye	2 "	5 "	60 "	Howard county.
Buckeye	2 "	7 "	90 "	Howard county.
Buckeye	3 "	8 "	85 "	Howard county.
Buckeye	2 "	9 "	95 "	Howard county.
Hackberry	2 "	11 "	124 "	Howard county.
Spanish Oak	6 "	26 "	90 "	New Madrid county.
Sassafras	2 "	9 "	70 "	Mississippi county.
White Ash	6 "	16 "	100 "	Mississippi county.
Honey Locust	2 "	13 "	125 "	Howard county.
Water Locust	6 "	8 "	80 "	New Madrid county.
Persimmon	6 "	9 "	80 "	Mississippi county.
Redbud	2 "	6 "	30 "	Mississippi county.
Redbud	2 "	5 "	25 "	Howard county.
Wild Plum	2 "	3 "	32 "	Franklin county.
Wild Plum	2 "	4 "	25 "	Mississippi county.
Dogwood	2 "	6 "	45 "	Pemiscot county.
Hornbeam	2 "	4 "	45 "	Mississippi county.
Papaw	1 foot	3 "	30 "	Mississippi county.
Papaw	1 "	2 "	25 "	Howard county.
Elder	.....	.....	15 "	Mississippi county.
Prickly Elder or Hercules' Club	2 feet	9 inches	25 "	Cape Girardeau county.
Muscadine Grape	.....	9 "	130 "	Dunklin county.
Frost Grape	.....	22 "	85 "	Howard county.
River Grape	.....	27 "	120 "	Howard county.
Summer Grape	.....	20 "	120 "	Howard county.
Trumpet Creeper	6 feet	18 "	95 "	Howard county.
Wistaria	2 "	12 "	75 "	Mississippi county.
Beech	6 "	18 feet	100 "	Stoddard county.

* These measurements show the peculiar form of the cypress and tupelo. They are large at the ground, but contract very rapidly at the hight of four or five feet. From this point the shaft ascends to a great hight without much diminution.

CENSUS.

This division of our Report is not as full as we could wish. In many things we have been limited in a great measure to the United States Census of 1860. We have drawn from that when we could get no later information; but when possible we have endeavored to obtain facts up to the latest date. The disturbed state of the country for the last few years has thrown society into so much confusion, and commerce and manufactures have been so much interfered with, that it is very difficult to obtain as much information on these points as could be desired. A census was taken by the State in 1864, but as a large part of the country was still in an unsettled condition, the record was, of course, very incomplete. Some counties had been entirely depopulated by military authority during the war, and the inhabitants were now just beginning to return to their homes. The country could not at this time be considered in a normal condition. It is to be hoped that another census will soon be ordered, and more carefully carried out than has heretofore been done. The best method of taking the census is a matter of question. In England the arrangements are such that it is taken in one day, and as nearly as possible simultaneously all over the kingdom. Whether a near approach to this system is practicable in this country, is doubtful. But whatever system is adopted, great pains ought to be taken to convince those who do not understand the object of taking the census that no taxation is founded upon it. Otherwise, many will not give true returns. The assessor and tax-gatherer are so much more familiar than the marshal of the census, that the people fear that a tax is to follow the enumeration. Even in our pursuit after items for this report, we have been regarded with suspicion of being in search of objects of taxation.

POPULATION.

No country in the temperate zone has the means within itself of supporting so large a population as the State of Missouri. For the agriculturist, we have lands of unsurpassed fertility, and for the miner and manufacturer, a greater variety of minerals than can be found elsewhere within the same extent of territory; and, what is unusual, most of our mineral lands are also good farming lands. With every natural inducement, we are sorry to say that our State has not increased in population as rapidly as some of the neighboring ones. Population is migratory, and is attracted by various causes. The farmer seeks rich lands and a good market; the manufacturer, the raw material; the merchant, means of transit, that he may procure and send away his goods easily and cheaply. In a State possessing all these advantages, we should naturally expect to see a large immigration setting in, and towns and villages springing up and growing with unexampled rapidity. Yet with all the natural attractions that can well be imagined, it is a well-known fact that Missouri has not kept pace with her sister States in the "march of empire."

There must be a cause for this, and we have shown that it can not be a physical one; it must, then, be a social one. Going over the whole subject, and looking carefully at every cause which might contribute to this result, we must come to the conclusion that it was an unfortunate day for Missouri when she was admitted into the Union as a slave State. Illinois, later settled, in no way superior either in soil or climate, possessing nothing like the natural means of transit, is far before us in

every social respect. Iowa, Minnesota, and Wisconsin, lying under the cold latitude of New England, still surpass us in the rapid increase of population and wealth. This fact is so well known and so incontestable that it is not worth while to adduce figures to prove it. But let us proceed to investigate the cause.

The institution of slavery naturally attracted emigrants from those portions of the country where it already existed. These were an agricultural people, who brought with them their negroes and habits of living on large plantations. Having little desire to see neighbors encroaching upon their broad lands, and with no genius for manufacturing, this class of population was not likely to improve the country. At the time of its admission into the Union, the State had begun to attract emigrants from the more thrifty sections of the North. Many of these, not choosing to live in contact with the "peculiar institution," took their departure to more congenial lands. Even in the early days of our history, the tide of emigration from the North and East was hindered from setting in this direction by the existence of slavery in the State. The natural inducements the country so richly offered could not overcome their repugnance to human bondage; and when the abolition excitement arose, it required a good deal of nerve for a New Englander to set his foot upon the soil. Emigration from the Southern States, which at first was large, soon grew less, because the people of those States are not migratory in their habits; and as soon as the novelty of a newly-discovered country wore off, it was found that there were plenty of new lands at home yet to be cultivated. Not being a manufacturing people, they did not build up towns and villages.

Now that Missouri is free and placed upon an equal footing with the neighboring States, we may expect to see her taking the place her unrivaled natural advantages offer. The following table will show the ratio of the movement of the population since the first census, in 1810:

RATIO OF THE MOVEMENT OF THE POPULATION.

Classes.	1810–20.	1820–30.	1830–40.	1840–50.	1850–60.
White	+225.00	+105.03	+182.14	+82.78	+79.64
Free colored	—38.05	+51.33	+176.62	—66.32	+36.44
Slave	+239.48	+145.46	+132.11	+50.11	+31.47
Total	+219.43	+110.94	+173.18	+77.75	+73.30

CLASSES OF POPULATION IN 1850 AND 1860.

Condition.	Males.		Females.		Total.	
	1850.	1860.	1850.	1860.	1850.	1860.
White	312,987	563,144	279,017	500,365	592,004	*1,063,509
Colored	1,361	1,697	1,257	1,885	2,618	3,572
Total Free	314,348	564,841	280,274	502,240	594,622	1,067,081
Slave	43,484	57,360	43,038	57,571	87,422	114,931
Free and Slave	357,832	622,201	324,212	559,211	682,044	1,182,012
Representative population (all the free 3-5ths of the slaves)	.....	.....	.....	.....	647,074	1,136,039

* Including 20 (13 male and 7 female) Indians.

SLAVES MANUMITTED AND FUGITIVE IN 1850 AND 1860.

YEARS.	MANUMITTED.	YEARS.	FUGITIVE.
1850	50 or 1 in 1,748=571 per 1,000	1850	60 or 1 in 1,457=686 per 1,000
1860	89 or 1 in 1,291=774 " "	1860	99 or 1 in 1,161=860 " "

DEAF, DUMB, BLIND, AND IDIOTIC, IN 1850 AND 1860.

CONDITION.	FREE.		SLAVE.		TOTAL.		RATIO PER 1,000.	
	1850.	1860.	1850.	1860.	1850.	1860.	1850.	1860.
Deaf and Dumb	263	520	19	46	282	566	.413	.480
Blind	194	388	38	60	232	448	.340	.380
Insane	251	750	11	20	262	770	.384	.651
Idiotic	325	447	32	63	257	510	.377	.431

MOVEMENT OF THE POPULATION DECENNIALLY.

YEARS.	ABSOLUTE POPULATION.				PROPORTION OF CLASSES.			Proportion to Population of U.S.	Population to Sq. Mile.
	White.	Free Color'd	Slave.	Total.	White.	Free Color'd	Slave.		
1810	17,227	607	3,011	20,845	82.64	2.91	14.45	0.29	0.31
1820	55,988	376	10,222	66,586	84.09	0.51	15.40	0.69	0.99
1830	114,795	569	25,091	140,455	81.74	0.40	17.86	1.09	2.08
1840	323,888	1,574	58,240	383,702	84.41	0.41	15.18	2.25	5.69
1850	592,004	2,618	87,422	682,044	86.80	0.38	12.82	2.94	10.12
1860	1,063,509	3,572	114,931	1,182,012	90.00	0.30	9.70	3.76	17.54

Missouri is entitled to eleven representatives in the Federal Congress.

CITIES AND TOWNS, AND THEIR POPULATION AT DECENNIAL PERIODS.

CITIES AND TOWNS.	1840.	1850.	1860.
St. Louis	16,469	77,860	160,773
St. Joseph	.....	2,000	8,932
Hannibal	600	2,020	6,505
Independence	.....	3,000	5,000
Lexington	.....	2,698	4,115
Weston	.....	1,915	4,000
St. Charles	.....	1,498	4,000
Boonville	.....	1,657	3,000
Ste. Genevieve	.....	718	3,000
Jefferson City	1,174	1,600	2,500
Palmyra	.....	1,284	2,500
Carondelet	.....	1,201	2,500
Cape Girardeau	.....	1,100	2,500
Columbia	.....	888	2,000
Louisiana	.....	912	2,000
Platte City	.....	496	2,000
Parkville	.....	309	2,000
Fulton	.....	700	2,000
Glasgow	.....	700	1,500
Springfield	.....	415	1,000

POPULATION OF ST. LOUIS.

1799	925
1810	1,400
1820	4,928
1828	5,000
1830	5,852
1833	6,397
1835	8,316
1837	12,040
1840	16,469
1844	34,140
1850	74,439
1852	94,000
1856	125,200
1859	185,587
1864	165,446
1866	204,327

NATIONALITIES.

Irish	26,136
German	49,779
French	1,945
English	3,909
American	118,376
Other	4,182
Total	204,327

Dwellings	18,558
Stores and dwellings	2,883
Stores	1,754
Total amount of Real and Personal Estate	$110,575,454
Owners of Real Estate	12,000

AMOUNT OF REAL ESTATE ASSESSED IN ST. LOUIS.

1859	$69,846,845	1863	$49,409,030
1860	73,765,670	1864	53,205,820
1861	57,537,415	1865	73,960,700
1862	40,240,450	1866	81,961,610

FROM THE SECRETARY'S REPORT TO THE UNION MERCHANTS' EXCHANGE.

UNION MERCHANTS' EXCHANGE,
SECRETARY'S OFFICE, *December* 31, 1866.

E. O. STANARD, Esq., *President of the Union Merchants' Exchange*—

SIR: I have the honor herewith to submit my report of the trade and commerce of St. Louis for 1866. The tables of receipts and shipments show a gratifying increase over last year, although perhaps it may fall short of the expectations of many. The business of our city during the past year has not been marked with any particular speculative demand, but has been steady and legitimate—transactions being based on an actual consumptive or shipping demand, with no attempts at "cornering" or forcing the market. Prices of produce have been generally steady, and as high as in other markets, so that shippers have realized as much for their products in this as they could have done in other cities. The receipts and exports of grain show an increase over 1865. The receipts of grain (and flour reduced to wheat) for 1865 were 17,657,252 bushels; for 1866, 22,279,072 bushels. Exports for 1865, 13,427,052 bushels; for 1866, 18,835,969 bushels. These figures may look small compared with those of some of our neighboring cities; but the fact that our city is yet deficient in conveniences for handling grain in *bulk*, will account for the disparagement. The St. Louis Grain Elevator has demonstrated the fact that grain can be handled in bulk advantageously; and with proper facilities for shipping to New Orleans and transferring at that point in bulk, grain can be delivered at the Eastern cities and foreign ports cheaper *via* the Mississippi river than by any other route. The cost of transporting a bushel of wheat from St. Paul to New York, *via* St. Louis and New Orleans, with four feet of water on the rapids above Keokuk, and the proper facilities for transferring at the two points named, would be at least twenty cents per bushel less than by any Northern route; and it is believed that, with a canal around the rapids, the cost would be less. The Mississippi Valley Transportation Company are prepared to handle grain in bulk; and a transfer elevator for New Orleans, built by St. Louis parties, is now

fast approaching completion and will be ready by opening of navigation. Efforts are being made to secure facilities for the erection of elevators and warehouses at East St. Louis, that will give our neighbors an opportunity to get their products to market without the expense of sacking and handling. Experience and the success of other cities have clearly demonstrated that in no way can grain be so cheaply handled as in bulk; and if St. Louis would compete for the grain trade of the West and Northwest, her merchants must encourage and facilitate in every possible way enterprises that look to that end. The bag system must still be retained, in a measure, for the interior trade of the States south of us, where grain is not, and perhaps can not be, handled in bulk; but while we may retain this very important branch of our shipping demand, we can, at the same time, look to making the Mississippi the great pathway of the products of the Northwest to foreign markets.

One great advantage to be secured is the long-talked-of but never-realized *improvement of the rapids*. This the people of the Mississippi Valley demand as a right long neglected by the General Government, while other seaboard demands for appropriations have again and again been complied with. And this demand must not be considered as a sectional one. Whatever tends to reduce the cost of food to the consumer benefits the whole country. If, by the expenditure of $5,000 000 a barrel of flour, or bushel of wheat or corn, can be laid down in New York, Boston, or other Eastern ports, twenty-five per cent. (or even ten per cent.) cheaper than it is at present, the East will reap the benefit, while the producer on the banks of the Mississippi will also be benefited by finding a cheap and easy access to a market. But while we must look to increasing the natural facilities given us, we must not neglect the artificial ones. Our railroad interests must be fostered and made to pay tribute to our city. The great Pacific is already treading its way over the great prairies of the extreme West, and the whistle of the locomotive is heard far to the westward of the Mississippi. The North Missouri is rapidly approaching the boundary of Iowa, and the people of that great producing State are coming to meet us. The Iron Mountain railroad will soon reach to the State line, and will be met by roads to various points in the South. Various projects have been submitted, and the citizens of St. Louis have been called upon to assist in new lines of railroad communication to the North. Our citizens should aid liberally these enterprises, as they all tend to increase the welfare of our city. It is the desire of the people of the Upper Mississippi Valley to trade with St. Louis. The high reputation and business standing of our merchants is well known; and, with the same facilities for transportation, a good share of their products will come to us for sale, and in turn our merchants will supply them with the articles they do not produce. From statistics gathered, it is shown that of 15,000,000 bushels of wheat shipped from points above Rock Island, but 1,000,000 came southward; of 318,000 hogs, none came to this market. The reason is self-evident. The people wish to trade with us, and are loud in their complaints against railroad monopolies, but are powerless because they have no alternative. St. Louis is already a great commercial city, but with these obstacles removed her resources might be doubled. The census taken during the past year shows a population of 204,327, and 23,195 dwellings. The total assessment of real estate and personal property was $110,575,454, and the value of real estate assessed was $81,931,610, divided among 12,000 owners. During the year many improvements have taken place, which I would be glad to note, but, as no record is kept by the city, I have not been able to compile them. The number of houses built has been variously estimated, but as these estimates were merely speculative, I do not deem them sufficiently reliable to place on record. That a great many new structures have arisen during the year, and that all are being built in a substantial manner and are creditable to the city, is well known to our citizens. What is needed most is comfortable houses, at low rents, for the artisans and mechanics who wish to settle here and add to the prosperity of our city by their own handiwork. Our manufacturing interests are on the increase, but might be enlarged advantageously. There is no reason why St. Louis should import so many articles, the raw material for which she exports to other cities. In the article of iron alone, with the metal and coal right at our door,

we are shipping the ore and bloom to other cities, and receiving back the manufactured articles, and paying cost of transportation both ways and the profits of manufacturing. Still, the manufacturing interests of St. Louis are very considerable, and are adding to the wealth and prosperity of the city.

The general business of the city has been fair, although more energy on the part of our merchants would increase their sales. It is a well-known fact that while the cities and towns around us are thoroughly canvassed by representatives from neighboring cities, a St. Louis man is hardly ever seen or heard of. Some may object to the "runner" system, as it is called, but while they are *objecting*, other cities are securing the trade. In dry goods, boots and shoes, and the lighter grades of trade, there has been a fair business done, though in some branches profits have been light. In the trade of the heavier groceries, our business, though large, is not what it should be. With the producing regions as near, and more easily reached than by many other cities, St. Louis should be ahead of any other city in the West in supplying the staple articles. The trade with Montana and the gold regions of the Upper Missouri is still increasing, and has exceeded, the past year, the most sanguine estimates. Fifty-one boats left St. Louis during the year for the Upper Missouri, carrying 20,770,000 pounds of freight and fair trips of passengers. Of this number, eighteen were employed by Government in transporting supplies to the troops and to the Indians.

The quantity of land taxed was, in 1850..... 9,511,251 acres.
And the quantity of land taxed in 1860.....29,696,987 "

The revenue and expenditures for the two years ending September 30, 1850 and 1860, were as follows:

	Revenue			Expenditures for two years.	Balance to next year.
	Balance.	Receipts.	Total.		
1849—50.....	$405,405	$787,089	$1,192,494	$532,586	$659,908

The indebtedness of the State, exclusive of the United States Deposit Fund, on the 31st of December, 1850 and 1860, was as follows:

Years.	State Bonds.	Loans to Railroads			Bonds to pay Interest	Total outstanding.
		Total.	Issued.	Not Issued.		
1850	$922,261	$2,000,000	.....	$2,000,000	....	$ 922,261
1860	662,000	24,950,000	$22,901,000	2,049,000	$100,000	23,563,000

The property owned by the State, beyond the railroad mortgages, $22,901,000, and the United States Deposit Fund, $509,780, consisted, in 1850 and 1860, of the following:

Years.	School Fund.	Seminary Fund.	Sinking Fund.	Stock in Bank of Missouri.	Total.
1850	$575,668	$100,000	$ 9,771	$272,264	$ 957,703
1860	678,968	100,000	52,098	272,264	1,103,300

AGGREGATE ABSTRACT OF THE VALUATIONS AND TAXES FOR THE YEAR 1866.

(REVENUE TAX: 40 CENTS AND $1 00 POLL. MILITARY TAX: 50 CENTS AND $2 00 POLL.)

COUNTIES.	No. of Polls.	No. of Acres.	Valuation of Acres, (Total.)	Val. per Acre. (Average.)	No. of Town Lots.	Valuation of Town Lots. (Aggregate.)	Valuation per Town Lot. (In the Average.)	Moneys, Notes and Bonds.	Other Personal Property.	Total Aggregate of Taxable Property.	Revenue Tax.	Military Tax.	County Tax. (Total.)
Adair	933	354,342	$1,018,966	$2 87	510	$ 79,215	$155 31	$ 69,590	$262,660	$1,430,431	$ 6,654 72	$ 9,018 15	$13,309,44
Andrew	1,529	321,725	2,632,340	11 87	846	180,800	213 71	294,065	726,940	3,834,148	16,856 58	22,210 72	39,861 45
Atchison	879	232,279	832,498	3 58	700	25,895	37 00	114,381	314,189	1,286,953	6,026 80	8,192 76	11,740 13
Audrain	921	419,466	2,434,649	5 80	589	146,537	248 79	239,822	571,314	3,392,322	14,490 26	18,803 60	19,161 53
Barry	392	126,327	374,710	2 97	152	11,678	76 83	52,597	106,904	547,457	2,575 55	3,513 14	3,667 34
Barton	3	288,379	640,147	2 22	226	2,460	10 88	3,875	2,930	615,770	2,596 95	3,247 94	973 57
Bates	43	524,920	1,543,475	2 94	1,160	22,436	19 34	8,160	19,064	1,593,135	6,415 29	8,051 67	5,577 59
Benton	1,041	321,884	882,568	2 74	721	46,359	64 30	76,545	338,461	1,343,933	6,416 72	8,801 65	9,104 57
Bollinger	665	266,385	590,090	2 22	69	3,010	43 62	34,035	162,955	790,090	3,815 36	5,260 45	3,815 36
Boone	2,346	422,542	2,029,750	4 80	1,966	210,800	107 22	278,262	486,289	3,005,101	14,366 40	19,717 50	32,396 29
Buchanan	2,567	246,545	4,701,816	19 07	13,103	3,080,793	235 58	449,960	808,250	9,046,819	38,754 27	50,358 09	94,591 59
Butler	184	224,576	207,760	92	60	4,580	76 43	20,573	70,174	303,092	1,396 36	1,883 46	1,883 46
Caldwell	696	259,241	900,640	3 47	1,426	67,535	47 36	74,545	279,090	1,321,810	5,983 24	8,001 65	8,978 12
Callaway	2,060	444,951	1,857,536	4 17	1,250	283,800	227 04	555,598	655,299	3,352,233	15,468 78	20,780 96	15,468 78
Camden	89	116,220	266,795	2 29	201	4,855	24 15	81,256	216,554	569,460	2,936 84	4,225 30	2,450 09
Cape Girardeau	2,282	288,111	1,348,475	4 68	.....	292,120	.....	305,470	516,255	2,562,320	12,531 28	17,375 60	9,968 93
Carroll	1,344	409,755	1,093,969	2 67	1,089	63,840	58 62	93,100	236,677	1,487,586	7,294 34	10,125 93	10,744 40
Carter, [to 1867]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cass	282	392,201	1,641,402	4 19	516	55,867	108 27	72,575	70,765	1,840,699	7,590 80	9,659 48	9,431 48
Cedar	391	265,717	375,982	1 42	203	8,160	40 20	53,831	97,635	535,608	2,533 43	3,460 04	3,213 61
Chariton	1,114	445,336	2,176,825	4 89	1,522	142,828	93 85	172,010	424,365	2,916,038	12,778 15	16,808 19	25,556 30
Christian, [to 1867]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clark	1,797	310,056	1,904,450	6 14	2,087	170,495	58 05	79,700	493,185	2,647,830	12,338 32	16,833 14	49,457 30
Clay	1,719	247,415	2,068,345	8 36	.....	185,330	.....	312,725	467,375	3,034,275	13,856 18	18,609 37	15,575 10
Clinton	960	259,372	1,480,903	5 71	1,424	81,765	57 54	198,059	424,927	2,185,654	9,702 61	12,848 27	13,166 63
Cole	1,835	230,581	1,004,684	4 36	1,473	669,640	454 61	315,835	656,485	2,646,644	12,421 57	16,903 04	15,886 67
Cooper	2,668	332,403	2,313,007	6 96	981	349,750	356 52	464,460	563,347	3,690,564	17,430 25	23,788 82	32,102 51
Crawford	1,041	237,284	549,525	2 42	295	17,316	84 47	54,047	214,165	835,053	4,381 21	6,257 26	6,051 31
Dade	590	228,119	809,248	2 71	332	20,917	63 00	131,976	164,789	1,126,930	5,097 72	6,814 65	5,097 72
Dallas	821	154,254	289,564	1 88	.....	.....	.....	49,998	176,280	515,842	2,884 24	4,221 06	2,884 24
Daviess	1,564	364,980	1,277,430	3 50	514	51,480	100 93	217,550	719,650	2,266,490	10,629 96	14,460 45	14,580 94
De Kalb	695	262,479	1,335,535	5 09	511	53,660	105 01	62,410	223,619	1,675,224	7,295 29	9,765 44	14,096 78
Dent	384	366,507	631,749	1 72	.....	.....	.....	48,111	100,019	779,879	3,503 52	4,667 39	4,823 37
Douglas	231	25,451	83,370	3 27	.....	.....	.....	13,934	52,822	150,126	831 50	1,212 63	1,662 52
Dunklin	471	85,782	427,485	5 00	73	5,190	71 10	16,152	108,566	557,393	2,700 56	3,728 96	3,728 96
Franklin	2,440	503,353	3,677,093	7 31	2,924	359,736	123 03	350,501	460,281	4,848,121	21,832 48	29,120 60	41,224 35
Gasconade	1,602	352,923	1,025,960	2 91	1,747	148,170	84 81	110,532	429,597	1,714,259	8,459 04	11,775 30	6,857 04
Gentry	1,002	306,041	812,250	2 65	.....	.....	.....	93,445	338,180	1,243,875	5,977 50	8,223 37	10,946 71
Greene	2,000	216,027	1,016,262	4 70	477	496,419	1,040 70	453,836	406,917	2,373,434	11,493 73	15,867 17	11,493 73
Grundy	878	276,513	1,488,109	5 38	340	31,315	92 80	119,808	459,109	2,148,332	9,471 56	12,497 96	11,619 93
Harrison	1,509	438,708	1,785,826	4 07	896	67,862	75 76	161,007	874,170	2,889,185	13,065 72	17,403 92	12,862 43

Henry	902	508,489	1,659,210	3 26	804	52,170	171 61	368,255	251,475	2,331,110	10,276 44	13,550 55	7,707 32
Hickory	493	157,846	311,197	1 97	72	4,505	62 57	34,612	132,383	482,707	2,423 83	3,309 53	2,536 77
Holt	918	239,776	825,085	3 44	614	94,225	153 47	108,080	268,545	1,295,935	6,101 74	8,315 67	11,285 48
Howard	2,270	276,879	2,071,240	7 48	1,242	298,400	240 26	715,425	572,520	3,657,588	16,990 88	22,878 55	26,856 57
Howell, [to 1867]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iron	598	304,227	1,166 502	3 83	1,257	218,943	170 20	60,614	243,323	1,684,382	7,338 51	9,619 90	10,705 27
Jackson	2,289	398,155	4,011 878	10 08	9,307	2,711,467	291 34	441,882	360,850	7,556,057	32,513 22	42,358 29	120,896 88
Jasper	10	.....	1,524 479	.....	.....	.....	.....	38,670	36,756	1,599,896	6,906 58	8,213 42	.....
Jefferson	1,661	362,065	1,451,816	4 01	825	46,900	55 76	117,914	332,897	1,978,537	9,575 14	13,214 67	19,611 00
Johnson	1,513	556,388	3,701,960	6 65	1,842	209,655	113 82	232,529	669,030	4,813,135	20,765 54	27,091 67	23,135 54
Knox	1,020	321,663	1,538,900	4 78	671	97,800	145 75	190,457	402,375	2,229,539	9,938 15	13,187 69	12,167 69
Laclede, [to 1867]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lafayette	2,429	382,987	3,468,366	9 06	2,424	656,225	270 72	511,525	777,950	5,414,000	24,085 00	31,928 00	13,257 00
Lawrence	917	226,561	853,991	3 77	178	59,790	335 90	189,092	275,057	1,377,840	6,428 36	8,723 20	12,856 72
Lewis	1,968	319,669	2,735,410	8 56	3,292	316,750	96 22	286,160	591,820	3,930 140	17,688 56	23,596 70	31,195 97
Lincoln	2,252	376,467	1,520,220	4 04	755	74,000	98 01	395,430	821,870	2,811,520	13,498 08	18,561 60	13,498 08
Linn	1,459	358,075	1,313,760	3 89	1,226	94,972	77 45	138,647	411,810	1,959,189	9,295 76	12,745 96	9,295 76
Livingston	1,248	263,435	1,253,805	4 68	2,386	275,664	115 53	207,555	365,995	2,083,019	9,580 67	12,911 08	38,118 33
McDonald	124	73,823	200,074	2 71	217	5,020	23 14	3,139	32,533	240,766	1,087 06	1,451 83	306 90
Macon	2,226	484,036	1,693,541	3 50	2,878	198,678	69 03	171,706	427,962	2,491,887	12,193 53	16,911 43	24,652 96
Madison	671	245,529	517,287	2 11	80	21,660	270 75	81,356	183,647	863,950	3,807 18	5,341 30	6,943 06
Maries	540	.....	377,980	.....	.....	.....	.....	70,664	190,141	638,785	3,095 14	4,273 92	2,825 13
Marion	2,264	275,519	3,441,421	12 49	3,367	1,877,805	557,71	501,139	652,787	6,513,252	28,317 00	37,094 22	56,634 00
Mercer	1,025	263,601	881,168	3 34	384	19,320	50 31	97,000	275,000	1,272,488	6,111 95	8,406 44	18,676 15
Miller	799	234,856	532,595	2 27	134	5,817	43 41	56,295	186,940	781,647	3,925 58	5,506 23	3,925 58
Mississippi	1,058	141,578	487,718	3 44	.....	26,618	.....	87,721	283,150	885,228	4,598 91	6,542 13	9,716 81
Moniteau	1,630	278,590	1,455,175	5 23	770	172,048	223 44	145,380	401,871	2,174,474	10,368 21	14,111 96	14,677 43
Monroe	1,762	410,276	1,939,300	4 73	411	77,009	187 35	471,720	913,150	3,401,170	15,366 68	20,529 85	11,985 51
Montgomery	1,406	298,535	1,933,359	6 48	1,040	91,648	88 12	256,070	354,987	2,636,061	11,950 25	15,992 32	19,858 45
Morgan	816	826,614	841,180	2 57	.....	46,510	.....	70,960	276,345	1,234,985	5,755 94	7,806 92	5,755 94
New Madrid, [to 1867]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newton	388	133,225	448,376	3 37	277	38,251	138 09	36,331	67,307	590,265	2,749 06	3,727 32	6,678 65
Nodaway	1,068	544,068	1,844,271	3 38	649	45,416	69 98	181,392	507,241	2,578,320	11,381 26	15,027 57	28,896 62
Oregon	308	342,894	118,685	35	18	320	17 77	8,205	32,928	100,228	948 90	1,417 14	948 9
Osage	1,592	364,866	674,931	1 83	271	13,445	45 92	162,272	358,553	1,219,601	6,470 40	9,282 00	10,129 2
Ozark, [to 1867]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pemiscot	387	158,109	197,865	1 25	57	10,000	175 44	25,195	97,610	330,670	1,710 68	2,429 35	1,322 6
Perry	1,421	253,860	784,620	3 09	220	38,765	176 20	221,070	189,620	1,241,075	6,357 30	9,012 37	8,111 45
Pettis	1,181	428,847	2,356,056	5 49	1,443	321,539	222 85	125,808	436,831	3,240,234	14,141 92	18,562 89	24,891 83
Phelps	892	199,868	519,775	2 60	518	148,485	286 65	99,575	276,640	1,044,475	5,069 90	7,605 37	7,158 85
Pike	2,750	353,349	2,551,800	7 22	2,508	645,600	257 42	737,150	769,500	4,704,050	21,566 29	29,020 25	21,566 20
Platte	2,106	259,787	2,974,312	11 45	1,895	354,825	196 58	369,047	504,067	4,202,251	18,915 00	25,223 25	37,830 01
Polk	1,050	293,031	658,951	2 25	241	35,873	153 09	241,706	495,215	1,432,745	6,780 98	9,263 72	6,780 98
Pulaski	314	120,433	282,675	2 35	34	4,110	121 76	21,355	88,555	396,725	1,900 90	2,611 62	1,426 17
Putnam	1,161	315,187	830,600	2 64	475	23,880	50 27	81,020	329,875	1,265,575	6,228 50	8,660 87	8,759 25
Ralls	1,221	285,765	1,753,735	6 14	290	16,109	56 55	235,560	362,350	2,368,045	10,693 18	14,282 22	20,165 36
Randolph	1,649	305,992	1,190,857	3 92	396	58,075	146 65	370,350	355,810	1,984,110	9,585 44	13,218 55	19,170 88
Ray	2,059	369,983	2,462,515	6 60	641	152,033	237 18	288,424	616,613	3,519,586	16,137 34	21,715 92	16,137 34
Reynolds, [to 1867]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ripley	295	293,782	343,985	1 17	.....	.....	.....	.....	99,657	434,642	1,943 56	2,583 21	3,682 12
St. Charles	3,299	342,932	2,428,263	7 08	1,653	596,060	360 60	444,853	389,513	3,858,689	18,733 75	25,891 44	26,451 13
St. Clair, [no report]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Francois	1,041	262,905	738,894	2 81	330	31,823	96 43	130,169	168,873	1,069,759	5,329 03	7,430 80	4,250 28
Ste. Genevieve	996	222,505	931,372	4 19	.....	.....	.....	136,465	208,523	1,276,360	6,101 44	8,373 80	6,101 44

AGGREGATE ABSTRACT OF THE VALUATIONS AND TAXES FOR THE YEAR 1866—*Continued.*

(REVENUE TAX: 40 CENTS AND $1 00 POLL. MILITARY TAX: 50 CENTS AND $2 00 POLL.)

COUNTIES.	No. of Polls.	No. of Acres.	Valuation of Acres. (Total.)	Val. per Acre. (Average.)	No. of Town Lots.	Valuation of Town Lots. (Aggregate.)	Valuation per Town Lot. (In the Average.)	Moneys, Notes and Bonds.	Other Personal Property.	Total Aggregate of Taxable Property	Revenue Tax.	Military Tax.	County Tax. (Total.)
St. Louis	16,947	.....	$.....	$....	.....	$10,778,470	$.....	$13,426,555	$12,672,175	$126,877,200	$.....	$.....	$.....
Saline	1,599	445,432	1,659,625	3 73	2,300	108,250	47 07	143,475	380,475	2,291,825	10,766 30	14,657 12	16,149 45
Schuyler	778	190,657	694,423	3 64	413	28,181	68 21	49,077	150,961	922,655	4,468 61	6,169 26	5,391 25
Scotland	1,310	266,548	1,213,480	4 55	518	69,710	127 29	152,655	427,125	1,862,970	8,761 88	11,924 85	17,523 76
Scott	842	205,078	986,585	4 81	209	101,525	339 55	179,310	114,795	1,382,215	6,370 86	8,595 07	7,753 07
Shannon, [to 1867]	....	.....	.....	....	....	.....	....	.....	.....	.....	.....	.....	.....
Shelby	1,429	293,765	1,398,165	4 76	697	117,855	169 09	126,942	235,195	1,878,157	8,941 62	12,248 78	13,927 14
Stoddard	658	167,719	697,682	4 16	151	20,215	131 27	27,135	124,742	869,774	4,137 28	5,664 83	8,274 56
Stone, [to 1867]	....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Sullivan	1,170	407,247	609,584	1 50	421	28,162	66 89	55,938	255,947	949,631	4,968 50	7,088 14	9,241 83
Taney, [to 1867]	....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Texas	399	280,845	453,433	1 61	1,393	5,575	4 00	15,490	67,641	542,049	2,567 19	3,558 24	2,168 19
Vernon	448	501,237	778,782	1 55	169	4,045	25 93	35,361	291,147	1,019,335	4,525 34	5,992 69	4,077 34
Warren	1,319	228,870	1,026,360	4 49	314	56,840	181 02	218,550	385,610	1,687,309	8,068 24	11,074 51	13,130 16
Washington	1,641	485,810	1,472,639	3 03	706	114,510	162 20	279,890	299,170	2,166,209	10,305 80	14,113 06	10,395 80
Wayne	580	217,572	328,518	1 51	52	1,322	25 42	52,157	102,743	484,740	2,518 96	3,583 76	2,908 45
Webster	890	154,877	722,387	3 37	741	31,952	43 12	147,867	230,567	932,773	4,621 10	6,443 85	4,621 10
Worth	438	134,960	568,790	3 08	192	5,960	31 18	31,150	171,570	777,457	3,547 98	4,763 48	7,095 76
Wright	259	151,851	360,270	2 37	37	1,540	41 62	18,140	72,720	452,670	2,060 68	2,763 35	3,871 36
Hannibal and St. Joseph Railroad	....	.....	1,632,668	....	.....	.....	.....	.....	.....	.....	6,530 00	8,163 34	.....
Total	134,765	29,690,156	$133,725,788	$....	97,569	$119,332,876	$.....	$31,259,848	$46,712,937	$331,031,374	$936,472 05	$1,269,431 76	$1,412,205 24
St. Clair, reported too late	377	386,559	1,453,067	3 86	459	26,515	58 92	20,050	150,662	1,650,294	6,978 10	9,995 46	8,628 46
St. Louis	....	.....	.....	....	.....	.....	.....	.....	.....	.....	524,641 70	668,529 87	.....

The valuation of property for taxation, and the true or estimated value thereof, in 1850 and 1860, were as follows:

YEARS.	ASSESSED VALUATION.		TOTAL.	TRUE OR ESTIMATED VALUATION.
	Real Estate.	Personal Property.		
1850	$ 66,852,223	$ 31,793,240	$98,595,463	$137,247,707
1860	253,450,577	113,485,274	66,935,851	591,214,598

The Taxes assessed on the valuation for State purposes, in the same years, are shown comparatively in the following exhibit:

YEARS.	Land.	Town Lots.	Slaves.	Personal.	Total.	Poll Tax.	Special Taxes	Total Taxes.
1850	$ 72,511	$43,127	$59,215	$21,689	$182,542	$32,512	$13,058	$229,273
1860	457,713	35,944	88,389	81,848	663,254	60,296	68,347	792,597

Quantity of land taxed was, in 1850 - - -

SOCIAL STATISTICS.

We have prepared and inserted this table in our report because we believe that it exhibits the social and moral condition more clearly than any description from the pen of even the most "valuable correspondent" could do. The first two columns are purely statistical, but, like much other statistical matter, the premises from which many valuable arguments may be deduced.

The columns which show the condition of "Public District Schools" are especially worthy of attention. Public Instruction is the groundwork of an enlightened government. To have wise government, the people as a body must be educated. It is not sufficient to have able leaders, for these sometimes lead astray. Had Public Education been one of the peculiar institutions of the South, even alongside of that other "peculiar institution," the late rebellion could hardly have added a chapter to history. No amount of political sophistry would have been able to induce a well-educated people to jeopardize their existence as a nation for an idea which had been thoroughly discussed and definitely settled by the wisdom of their forefathers. Patrick Henry exhibited the doctrine of State Rights in all the vividness which the light of his matchless eloquence could throw around it; and the mutual compact of the "People of the United States" was the result, notwithstanding his opposition.

Had Public Instruction been regarded in the light of a national necessity, had the people known that all their pretended grievances had been discussed again and again, and were no grievances, but that mutual concessions had resulted in the formation of a government under which they had lived happy and contented till some *ignis fatuus* appearing in their darkness was luring them into the bogs of political anarchy, they would have comprehended the depth of the delusion and shunned it.

We hope and trust that, among all the reconstructions which must grow out of our political chaos, the system of Public Instruction will receive the attention which its vital importance in the welfare of the State demands.

The State of Missouri is commencing a new career, and we hope it may be one of national as well as individual prosperity. To this end nothing will contribute more largely than "National Instruction." We use this term "National Instruction" because we believe that Public Schools, to achieve the greatest benefit to the individual, must be a national institution. The people must awake to this element of national grandeur.

We like the answer of the boy who, toiling amid the rocky hills upon the ungenial soil of New England, was accosted by a traveler who sneeringly asked, "What do you do, what do you raise, in such a country as this?" "Build schoolhouses and raise men," was the noble reply. The matter of Public Schools is frequently misunderstood; they are too often looked upon by the rich only as schools for the poor. To have concise as well as true Pauper Schools, some of the States have actually limited the benefits of public instruction to "indigent children;" that is, a man must swear himself a pauper before his children can receive any benefit from the public treasury. No wonder that Public Schools do flourish, and that the mass of the people remain uneducated, under such a system of Public Education (?). You might as well expect a plant to grow and flourish under a rock.

Many who concede that it is necessary and right that the rich should be taxed to educate the poor, bring forward this objection to "free schools:" A., who is rich, says, "Why should I pay for the education of B.'s children, who is as rich as I am? I do not intend to send my children to the Public Schools; I pay for the education of my children; I do not choose that they should be a public charge." This is a very forcible way of putting the case, but the parent who argues thus forgets that it is impossible for government to make laws to suit exceptions. Great principles must be kept in view. "The greatest good of the greatest number," must be the motto of the Legislature; and if we do not establish Public Schools for all, we may as well not have them for any.

If the rich man does not see fit to educate his children at the Public Schools, the question is not what may be *his* ideas on the subject, but what is best for the nation. And it is possible that if he would consider the subject without prejudice, and let the real good of his child weigh equally in the scale with parental fondness, he would come to the conclusion that to teach him to battle with the world after he leaves the paternal roof, he cannot do better for his child than to introduce him to some of its phases as they are exhibited in the Public School. Here, if exposed to temptation and danger, he has the benefit of parental guidance and parental restraint, and gains experience for use in after life.

Private Schools, Academies, Colleges, and Universities, have all their purposes, and wise ones, but nothing can take the place of the Public School. The boy there imbibes the elements of patriotism; he learns that there is a community of interests, that the rich and poor mutually depend upon each other for their happiness. If he is inclined to be selfish or proud, or has any salient points in his character which are detrimental to his welfare, they will be as effectually smoothed down and polished away in this juvenile community, and much easier for him than if left to increase till the rude shocks of the real world batter them down.

We believe that the national schools of Prussia have done more towards placing that nation on the proud eminence she now occupies than any exploits which the famous needle-gun can ever achieve.

We have said more on this subject than we should otherwise have done, but we believe that the importance of a thorough system of Public Instruction demands the earnest attention of the Legislature. It will be seen that our statistics on this subject do not show a prosperous condition of our public schools. The means of educating their children is an important question with intelligent immigrants. The New Englander or Prussian would rather cultivate a poorer soil, and breathe the air of a ruder climate, than settle where education is denied his children or given grudgingly as charity to paupers.

Who that has enjoyed the benefits arising from a good system of public instruction would be willing to bring a family of children into a country where the ratio of children attending district schools is only 7 to the 100 inhabitants. Yet such is the fact in some counties of our own State.

This state of things is undoubtedly due in some measure to the sparseness of our population and the consequent difficulty of maintaining schools. But it might be easily shown that indifference has much more to do with it.

MARRIAGES, BIRTHS, AND DEATHS.

These items of our social condition we find it impossible to obtain with any degree of accuracy. The United States census gives the mortality for 1860, at 17,654, classed under various diseases. From this it will be seen that Pneumonia is the most fatal, and Consumption next. Besides, the ravages of the war during the last four years have overturned all the usual conditions of society. In many parts of the State, even if we could compile the statistics on these subjects for the last four years, they would not exhibit a normal condition of society. Until a law is established requiring a proper registration of these important items, and until they are duly reported to this bureau, nothing better than guesses (sometimes called estimates) can be made. If a proper registration of births, marriages, and deaths, was made throughout the State, we believe enough would be saved, which is now wasted in litigation, to pay all expenses.

With regard to Churches and Church Accommodation, it is unnecessary to urge their importance. Few will be found willing to deny that they stamp the character of the people.

The following tables (first series) were compiled from the U. S. census of 1860. They give a general view of the social condition, and may serve as a means of estimating our growth intellectually and morally.

The second treats of the present condition of Public Schools.

FIRST SERIES.

COUNTIES.	White Males.	White Females	Total.	No. of School Districts.	No of Children attending District Schools.	No. Churches.	Aggregate of Church Accommodation.	Value of Ch'ch Property.
Adair	4,442	3,994	8,436	58	1,538	2	900	$ 4,400
Andrew	5,884	5,065	10,949	59	2,236	21	9,270	23,000
Atchison	2,554	2,024	4,578	24	1,188	5	2,350	6,000
Audrain	3,655	3,254	6,909	41	893	11	2,210	14,200
Barry	3,950	3,788	7,738	49	1,166	14	2,950	5,875
Barton	975	821	1,796	16	249	...	.....	.....
Bates	3,635	3,130	6,765	47	1,596	34	11,200	7,500
Benton	4,416	4,044	8,460	48	168	12	3,225	16,230
Bollinger	3,604	3,522	7,126	41	683	3	1,100	3,000
Boone	7,577	6,822	14,399	77	2,379	26	7,800	33,350
Buchanan	11,883	9,916	21,799	57	2,751	10	4,105	66,500
Butler	1,506	1,331	2,837	29	310	5	450	250
Caldwell	2,563	2,247	4,810	34	957	3	1,150	3,500
Callaway	6,814	6,081	12,895	59	2,058	43	13,900	67,000
Camden	2,460	2,309	4,769	22	532	8	1,930	950
Cape Girardeau	7,312	6,649	13,961	57	2,380	23	10,556	46,500
Carroll	4,606	4,086	8,692	58	1,356	9	2,850	6,700
Cass	4,699	4,082	8,781	47	1,641	16	6,650	27,150
Carter	625	575	1,200	6	74	1	150	50
Cedar	3,279	3,141	6,420	48	1,454	22	3,325	27,150
Chariton	5,153	4,519	9,672	78	2,170	30	7,500	31,370
Christian	2,656	2,606	5,262	45	726	9	3,200	5,440
Clark	5,948	5,268	11,216	68	2,124	14	4,150	22,650
Clay	5,044	4,481	9,525	51	1,750	21	10,100	42,900
Clinton	3,610	3,075	6,685	49	1,463	13	4,250	24,350
Cole	4,805	3,840	8,645	33	1,197	13	3,050	37,700
Cooper	7,138	6,390	13,528	61	2,064	31	9,390	55,400
Crawford	2,928	2,712	5,640	47	864	3	450	.....
Dade	3,464	3,257	6,721	44	1,466	16	3,950	7,750
Dallas	2,936	2,841	5,777	51	1,216	8	2,500	4,650
Daviess	4,920	4,328	9,248	65	1,465	8	4,000	8,700
DeKalb	2,666	2,415	5,081	42	1,029	4	760	3,340
Dent	2,850	2,648	5,498	42	280	2	650	900
Douglas	1,251	1,163	2,414	23	.....	...	.....	.....
Dunklin	2,490	2,365	4,855	18	491	11	3,500	.....
Franklin	854	7,611	16,465	68	1,987	28	5,910	38,200
Gasconade	4,572	4,070	8,642	47	1,126	13	1,670	8,995
Gentry	6,248	5,614	11,862	79	3,088	24	11,300	22,000
Greene	5,964	5,545	11,509	71	3,652	13	4,500	39,700
Grundy	3,936	3,660	7,596	64	2,216	6	2,200	6,600
Harrison	5,549	5,052	10,601	83	2,942	5	1,500	2,200
Henry	4,581	4,039	8,620	57	2,103	12	5,200	16,700
Hickory	2,382	2,121	4,503	29	607	14	3,550	1,100
Holt	3,311	2,930	6,241	41	1,738	3	1,250	6,600
Howard	5,244	4,742	9,986	60	2,462	32	16,450	62,500
Howell	1,610	1,523	3,133	14	360	3	350	300
Iron	2,970	2,559	5,529	15	342	6	1,250	2,000
Jackson	10,292	8,607	18,899	56	2,499	38	14,325	125,750
Jasper	3,480	3,053	6,533	51	966	4	1,400	2,200
Jefferson	5,218	4,545	9,763	54	1,111	8	790	21,550
Johnson	6,837	5,906	12,743	76	2,654	36	9,750	33,150
Knox	4,461	3,975	8,436	69	2,049	7	1,800	16,600
Laclede	2,477	2,398	4,875	51	686	1	300	500
Lafayette	7,431	6,257	13,688	63	4,760	...	.....	.....
Lawrence	4,343	4,216	8,559	62	3,942	21	7,155	10,250
Lewis	5,887	5,096	10,983	51	3,909	40	11,700	40,700
Lincoln	6,003	5,344	11,347	63	4,301	10	2,225	17,000
Linn	4,501	4,008	8,509	59	3,195	7	1,700	12,200
Livingston	3,694	3,188	6,812	43	3,929	14	6,700	17,600
Macon	7,180	6,493	13,673	85	5,167	12	5,300	7,350
Madison	2,717	2,462	5,179	32	1,930	15	3,300	5,200

COUNTIES.	White Males.	White Females	Total.	No. of School Districts.	No. of Children attending District Schools.	No. of Churches.	Aggregate of Church Accommodation.	Value of Church Property.
Maries	2,495	2,335	4,830	42	2,214	7	855	$ 1,120
Marion	8,402	7,330	15,732	43	4,894	31	10,520	69,400
McDonald	2,091	1,866	3,957	35	1,615	18	1,800	3,900
Mercer	4,831	4,443	9,274	70	4,037	9	2,900	3,450
Miller	3,374	3,198	6,572	52	2,653	10	2,900	5,250
Mississippi	2,178	1,671	3,849	...	1,470	9	2,230	7,300
Moniteau	4,918	4,457	9,375	59	3,693	18	3,950	12,560
Monroe	6,201	5,521	11,722	67	4,731	29	5,400	25,100
Montgomery	4,186	3,875	8,061	45	2,631	8	12,490	8,150
Morgan	3,996	3,549	7,545	40	2,256	10	2,200	6,610
New Madrid	2,167	1,696	3,863	...	.....	12	2,350	3,700
Newton	4,560	4,282	8,842	45	3,300	4	1,800	5,300
Nodaway	2,725	2,398	5,123	64	2,836	3	800	6,500
Oregon	1,569	1,414	2,983	23	1,189	15	2,530	.....
Osage	4,057	3,566	7,623	53	3,168	14	4,600	33,200
Ozark	1,203	1,158	2,361	23	.....	...	.....	.....
Pemiscot	1,420	1,302	2,682	...	.....	4	700	700
Perry	4,441	3,925	8,366	43	1,688	13	3,675	32,600
Pettis	3,969	3,535	7,504	47	1,600	15	.....	16,350
Phelps	3,257	2,371	5,628	40	448	2	400	1,500
Pike	7,406	6,896	14,302	63	2,648	27	11,020	58,700
Platte	8,145	6,836	14,981	69	2,556	30	10,500	85,100
Polk	4,830	4,668	9,498	62	2,681	17	5,250	15,300
Pulaski	2,001	1,778	3,779	25	.....	..	.....	.....
Putnam	4,812	4,364	9,176	77	3,010	4	1,900	2,000
Ralls	3,630	3,158	6,788	47	1,853	17	6,200	17,780
Randolph	6,431	4,117	8,777	50	1,970	29	10,850	20,890
Ray	6,431	5,607	12,038	66	2,907	20	13,000	19,950
Reynolds	1,586	1,549	3,135	30	.....	8	975	785
Ripley	1,886	1,780	3,666	35	.....	14	2,610	2,130
St. Charles	7,786	6,527	14,313	48	2,419	34	6,520	111,500
St. Clair	3,310	2,919	6,229	50	1,573	5	1,200	1,600
St. Francois	3,274	3,018	6,292	27	1,628	27	5,650	17,050
Ste. Genevieve	3,861	3,462	7,323	28	759	10	3,950	24,200
St. Louis	98,460	85,853	184,313	71	13,276	74	49,786	2,623,200
Saline	5,294	4,506	9,800	56	1,292	29	8,600	57,100
Schuyler	3,427	3,231	6,658	46	1,854	5	2,200	4,300
Scotland	4,627	4,115	8,742	51	2,322	7	3,000	6,500
Scott	2,509	2,221	4,730	22	605	18	4,800	5,500
Shannon	1,180	1,091	2,271	...	.....	9	1,000	1,600
Shelby	3,502	3,063	6,565	45	1,524	8	3,700	15,200
Stoddard	3,944	3,715	7,659	47	1,477	13	4,400	5,000
Stone	1,261	1,123	2,384	24	153	...	.....	.....
Sullivan	4,674	4,421	9,095	65	1,819	63	*800	.....
Taney	1,738	1 751	3,489	35	736	...	.....	.....
Texas	3,164	2,845	6,009	48	697	..	.....	.....
Vernon	2,508	2,204	4,712	51	854	1	150	1,000
Warren	4,234	3,564	7,798	36	1,465	20	4,730	11,925
Washington	4,556	4,120	8,670	38	1,219	23	7,100	48,200
Wayne	2,687	2,674	5,361	43	206	14	5,000	11,950
Webster	3,476	3,403	6,879	51	1,873	...	.....	.....
Wright	2,261	2,181	4,442	20	606	3	600	775
Total	563,144	500,365	1,063,509	5,254	170,837	1,577	500,616	$4,509,767

* Evidently some mistake here; 63 churches for 800 people! —*U. S. Census.*

NOTE.—No returns of religious statistics from the following counties, viz: Barton, Douglas, Lafayette, Ozark, Pulaski, Stone, Taney, Texas, Webster.

SECOND SERIES. — ABSTRACT OF RETURNS BY COUNTIES, CONDENSED FROM DISTRICT RETURNS MADE TO SUPERINTENDENT OF PUBLIC SCHOOLS, IN THE YEAR 1836, TO THE TWENTY-FOURTH GENERAL ASSEMBLY.

COUNTIES.	CHILDREN.							Schools.		TEACHERS.		SCHOOL HOUSES.				SCHOOL FUND.			EXPENDITURES.	MISCELLANEOUS.				Private Schools.	
	White Males.	White Females.	Colored Males.	Colored Females.	Total in Township.	Public Schools—Males.	Public Schools—Females.	Aver. Number of Months Taught.	Aver. Attendance per Month.	Males Employed.	Females Employd.	Aver. Salary of Males per Month.	Av. Salary of Females per Month.	Number of Brick and Stone.	Number of Frame.	Number of Log.	Whole number in Township.	Value of School Houses.	Am't rec'd from State.	Amount Fines and Penalties.	Total of Township Fund.	Teachers' Wages.	Amount for fuel, buildings, repairs, and contingencies.	Value of School Furniture.	Value of School Apparatus.	Money on hand.	Indebtedness.	No. of Males.	No. of Females.	No. of Schools.
Adair	2,082	1,803	22	19	3,931	1,379	1,201	4	..	34	37	$ 29	$ 21	..	12	29	51	$12,373	$	$	$	$5 113	$1 155	$ 121	$ 25	$ 242	$115	..	..	..
Audrain	1,239	1,205	124	142	2,761	327	333	5	..	35	13	..	..	..	17	12	29	5,775	114	476	1,141	1,913	....	....	....	33	56	35	30	..
Barry	659	583	..	51	1,252	....	....	6	..	40	7	..	..	..	1	4	5	1,615	....	....	....	....	....	....	....	....	....	35	63	5
Barton	256	276	2	..	535	92	62	3	..	31	4	..	..	..	1	4	5	1,615	....	....	....	480	....	....	....	64	162	..	..	..
Bates	1,009	831	12	18	1,870	247	250	4	..	23	8	..	..	..	12	5	17	3,000	....	....	....	841	....	....	....	11,134	....	..	..	..
Boone	1,931	1,699	326	347	4,523	284	190	..	..	47	32	..	..	5	14	..	23	6,705	....	....	....	2,281	179	37	330	440	51	125	111	..
Benton	1,208	1,203	45	43	2,502	372	267	4	..	43	15	..	..	..	3	..	3	1,665	....	....	....	622	....	....	....	152	....	..	..	15
Butler	659	587	3	11	1,231	47	32	5	..	20	1	..	..	..	1	..	1	200	....	....	....	....	....	....	....	....	....	..	..	..
Bollinger	508	479	..	..	1,797	49	55	5	..	20	1	..	..	4	1	..	17	1,950	314	307	1,342	251	6	25	....	836	....	37	25	12
Camden	879	828	33	31	1,792	212	214	4	..	33	15	..	..	..	4	..	15	900	394	....	1,252	2,584	6	7	1,166	39	210	150	22
Caldwell	1,179	1,053	64	44	2,317	252	251	4	..	19	17	..	..	..	12	..	28	7,500	....	436	1,333	3,218	2,030	....	74	857	39	28	6
Carroll	1,589	1,339	138	80	3,146	459	6	..	60	15	..	..	..	1	11	..	12	2,100	....	....	....	2,569	178	21	115	342	58	19	21	5
Cape Girardeau	2,143	1,919	125	152	6,334	617	575	5	..	40	33	12	..	..	12	..	24	5,220	965	378	5,000	2,211	66	26	....	6,657	....	179	160	10
Christian	1,180	1,172	33	23	2,417	419	312	4	..	33	24	3	..	..	11	..	14	2,365	....	....	985	1,587	....	....	....	....	....	279	262	9
Chariton	1,969	1,695	77	86	4,325	618	516	4	..	35	19	14	..	..	12	..	24	7,200	....	....	....	3,158	535	....	13	729	54	....	....	47
Clinton	1,431	1,374	17	117	2,762	362	472	6	..	67	16	11	..	..	13	..	13	2,700	....	....	....	2,072	203	20	287	59	64	16	..	..
Clark	2,582	2,203	17	25	4,829	710	615	5	..	35	19	26	..	3	21	..	39	6,500	....	....	3,535	*	*255	....	*100	*145	*	297	309	..
Callaway	449	355	59	60	963	....	....	10	..	37	5	6	..	..	11	..	13	2,000	....	....	....	787	10	25	50	....	....	....	....	2
Cedar	953	811	15	12	1,771	387	268	8	..	23	16	3	..	..	15	..	21	3,500	....	....	758	1,785	103	....	....	51	144	491	295	3
Carter	205	187	..	1	393	....	....	..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	..
Crawford	1,432	1,429	22	22	2,832	192	139	6	..	24	5	10	..	..	12	..	24	8,185	295	143	8,152	781	147	....	....	275	....	76	65	..
Cooper	2,150	2,044	87	135	5,024	802	741	4	..	35	21	29	..	17	14	..	31	9,049	983	511	3,733	3,343	46	80	1250	78	..	398	261	5
Cole	1,375	1,825	85	73	3,401	337	337	4	..	35	23	10	..	3	32	..	35	7,525	....	....	....	1,895	360	50	....	175	12	229	190	5
Clay	445	380	43	36	904	484	416	10	..	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	..
Dent	993	867	7	3	1,870	....	....	..	..	..	..	..	..	..	..	..	7	500	1,050	....	4,478	....	....	....	....	5,301	....	....	....	3
Dallas	1,255	1,164	15	13	2,448	717	420	..	..	53	26	11	..	..	30	..	41	6,380	215	154	1,500	2,432	200	75	....	....	....	83	53	2
Daviess	2,312	2,185	74	77	4,648	1,436	1,265	4	..	37	35	27	..	..	35	..	59	9,475	....	....	4,499	4,074	983	18	25	376	....	13	11	3
DeKalb	1,202	1,120	20	18	2,702	129	134	4	..	42	21	11	..	..	42	..	42	6,700	....	....	....	2,827	193	10	....	261	830	126	144	7
Douglas	428	613	4	3	1,047	51	45	2	..	34	3	..	..	..	27	..	27	2,550	58	....	....	112	73	10	136	30	....	10	11	1
Gentry	1,297	1,157	8	8	2,422	241	182	4	..	27	12	..	..	1	12	..	30	5,000	....	....	....	3,578	159	....	....	....	....	....	....	..
Gasconade	2,154	1,845	29	25	4,100	853	678	4	..	41	32	..	..	1	1	..	41	5,405	....	....	....	3,574	475	65	80	41	580	409	306	7
Greene	3,628	3,539	304	314	7,785	1,608	1,546	3	..	70	55	23	..	..	49	..	56	6,500	....	....	....	6,325	1,298	....	8	1,889	1331	636	672	25
Grundy	2,152	2,044	35	36	4,267	1,086	1,061	4	..	47	34	..	..	..	16	..	31	9,425	....	321	....	3,068	....	....	....	....	....	91	85	7
Henry	1,057	993	49	72	2,147	305	265	6	..	18	11	16	..	..	49	..	65	3,755	....	....	....	2,218	92	170	....	1,637	1584	40	55	1

* Not reported and reported for only one township.

SECOND SERIES.—ABSTRACT OF RETURNS BY COUNTIES—*Continued.*

COUNTIES.	CHILDREN.							Schools.	TEACHERS.			SCHOOL HOUSES.			SCHOOL FUND.			EXPENDITURES.	MISCELLANEOUS.			Private Schools.	
	White Males.	White Females.	Colored Males.	Colored Females.	Total in Township.	Public Schools—Males.	Public Schools—Females.	Aver. Number of Months Taught.	Aver. Attendance per Month.	Males Employed.	Females Employ'd	Average Salary of Males per Month.	Number of Brick and Stone.	Number of Frame.	Number of Log.	Whole number in Township.	Value of School Houses.	Amount received from State.	Amount Fines and Penalties.	Total of Township Fund.	Teachers' Wages.	Amount for fuel, repairs, buildings, and contingencies.	Value of School Furniture.	Value of School Apparatus.	Money on hand.	Indebtedness.	Males.	Females.	No. of Schools.
Howard	1,582	1,483	458	321	3,847	224	205	6	28	9	7	$ 31	$ 29	1	10	16	27	$4,750	$	$	$	$1 412	$ 100	$	$	$	$	29	29	1
Harrison	2,551	2,346	6	8	4,901	1,175	1,001	3	44	44	25	27	19	2	18	35	66	8,782	....	2,839	5,766	4,315	2,428	45	..	60	..	..	..	..
Hickory	909	818	9	5	1,801	419	307	3	33	39	14	30	30	..	1	14	15	1,175	....	....	....	1,875	....	....	....	91	69	..	..	..
Holt	1,537	1,360	29	19	2,945	985	929	5	38	25	18	41	26	1	18	14	33	10,700	....	....	....	7,367	453	....	70	1,004	..	42	26	..
Iron	497	496	21	11	938	107	97	9	10	1	4	60	40	..	..	..	*1	*2,000	....	....	....	*730	....	....	....	..	*230	38	54	4
Johnson	2,822	2,746	278	316	5,162	757	698	4	37	29	13	45	31	1	28	13	42	7,954	....	....	....	2,544	225	250	25	37	491	282	228	9
Jackson	2,325	2,172	184	128	4,809	195	*277	5	35	*35	*40	..	2	..	6	12	22	6,600	....	....	18,000	*820	135	....	....	....	....	89	81	..
Jefferson	1,909	1,833	104	57	2,966	411	376	5	42	22	12	35	21	1	6	8	30	7,770	....	291	2,484	2,317	20	....	....	....	....	....	....	4
Knox	1,869	1,624	50	35	3,581	1,192	1,027	4	49	34	41	36	21	3	35	20	55	11,615	....	....	3,164	5,274	1,057	....	87	810	113	50	58	3
Lawrence	2,033	1,968	30	28	4,089	236	209	4	29	12	6	32	24	1	4	21	37	2,200	14	3	....	557	12	10	..	36	....	226	226	6
Lafayette	1,573	984	351	325	3,581	281	252	3	21	12	3	43	29	3	15	3	21	2,150	....	....	....	1,328	10	..	..	504	....	26	31	4
Lewis	2,382	2,062	2020	208	4,302	857	599	6	29	26	29	31	24	6	15	18	39	9,954	....	....	3,274	4,792	70	600	..	465	....	58	58	10
Laclede	1,018	939	28	18	2,003	198	93	3	19	10	4	30	22	..	2	13	15	805	....	....	....	....	....	....	....	....	....	23	79	..
Lincoln	2,309	2,127	284	301	5,113	493	501	10	33	19	39	37	25	3	12	52	30	17,000	....	....	....	5,506	15	50	..	162	10	291	273	20
Linn	2,967	2,226	119	115	4,995	737	559	5	39	41	23	37	25	..	25	27	52	9,495	....	....	....	3,351	877	....	....	637	726	64	54	9
Livingston	2,043	1,939	153	128	4,309	1,324	1,258	5	24	37	27	40	25	..	20	24	44	14,055	436	....	10,818	7,651	6,452	1,844	100	1,007	542	155	196	12
McDonald	486	431	5	7	930	102	73	4	31	6	..	31	..	..	2	9	11	815	673	....	....	*120	....	....	....	....	....	12	4	1
Macon	3,289	3,168	215	267	6,989	....	....	4	42	56	11	33	26	..	13	26	39	6,305	....	....	26,523	....	....	....	....	....	....	....	....	..
Mercer	1,803	1,690	27	8	3,438	1,099	937	5	45	26	14	30	20	..	15	23	38	6,082	....	....	....	2,834	20	5	..	499	90	101	100	5
Miller	1,545	1,287	35	35	2,902	650	532	3	30	24	10	30	22	..	2	15	37	5,135	....	....	....	1,843	26	5	..	232	..	284	260	11
Moniteau	2,187	2,091	137	123	4,278	754	644	5	36	24	9	32	27	3	13	30	35	5,430	....	....	....	2,230	707	....	....	63	464	50	42	2
Monroe	2,533	2,068	374	341	5,319	....	....	5	38	11	18	36	26	1	39	20	60	15,495	....	....	....	4,413	320	....	....	45	249	..	..	..
Montgomery	1,427	1,416	209	207	3,250	469	436	3½	..	17	20	36	30	..	17	17	34	5,180	....	....	13,516	2,771	465	58	..	108	25	456	222	14
Morgan	1,284	1,228	78	75	2,695	425	359	4	29	13	9	27	20	1	8	21	39	3,330	....	....	....	1,912	270	10	..	88	40	73	102	5
Newton	1,040	1,046	36	30	2,149	....	....	..	..	..	..	..	..	..	1	8	9	*75	....	....	....	....	....	....	....	....	....	5	3	..
Nodaway	1,423	1,195	5	6	2,739	557	695	5	29	18	26	37	23	1	23	8	32	10,370	....	....	....	3,670	1,309	6	..	1,001	..	20	38	2
Osage	1,729	1,603	26	27	3,389	232	216	6	32	13	11	28	23	..	1	26	27	2,720	....	....	44	2,690	6	80	..	6	52	81	91	7
Oregon	65	43	....	....	108	50	30	3	75	1	1	20	..	..	1	1	2	250	....	....	....	....	....	....	....	....	....	29	21	..
Pemiscot	257	221	29	29	236	....	....	5	31	1	1	*40	..	..	..	2	2	150	....	....	....	280	53	....	..	10,359	....	..	..	..
†Pettis	1,431	1,470	240	240	3,384	172	118	..	..	19	12	39	35	1	22	5	28	10,025	....	....	....	29,600	1,352	....	5	....	....	315	311	..
Perry	1,637	1,512	71	71	3,294	431	379	..	..	28	14	27	20	1	1	41	43	6,590	....	....	15,524	2,943	166	....	..	509	49	431	378	15
Phelps	975	915	30	30	1,950	....	....	4	30	..	..	..	..	..	1	7	8	160	....	....	....	....	....	*50	..	....	....	....	....	4
Polk	2,158	1,965	55	56	4,234	908	862	3	42	42	18	32	27	..	7	39	46	5,055	....	....	....	4,544	*253	*50	..	552	573	220	202	7
Pike	2,306	2,142	344	307	5,008	418	749	6½	42	30	25	36	24	5	12	23	40	2,409	....	....	....	3,392	520	4,490	(?)	507	....	375	40	7
Pulaski	651	589	5	5	1,241	28	12	3	30	7	1	31	*25	..	..	13	13	750	....	....	....	483	110	....	..	....	327	68	49	1

* Only one township reported.

† School Library valued at $120.

Putnam	2,032	1,889	2	3	3,956	1,388	1,235	4	23	44	27	26	17	1	13	38	52	8,359	....	...	....	1,616	3,510	55	..	....	...	..	..	..		
Randolph	1,344	1,205	156	158	2,362	632	458	4 ½	33	16	14	34	27	..	14	23	37	4,325	....	...	....	....	515	...	..	....	...	209	168	11		
Ray	2,899	2,627	294	255	6,173	1,542	1,281	3 ½	..	14	36	33	..	1	23	33	57	7,805	....	...	....	....	....	...	..	3,834	...	..	..	1		
Reynolds	610	631	7	6	1,244	....	....	2 ½	27	7	5	25	21	..	..	13	13	565	....	...	....	641	80	...	..	....	...	154	169	13		
St. Francois	801	831	34	29	1,088	19	13	4	24	3	5	38	25	..	6	2	8	540	....	482	2,754	....	....	...	..	....	...	..	..	..		
St. Charles	2,454	2,275	206	207	5,142	608	487	6	48	18	19	35	33	7	8	11	26	5,825	....	759	56,745	5,880	752	*100	..	....	146	265	270	3		
St. Clair	1,229	737	30	26	1,998	235	369	4 ½	..	14	5	32	32	1	1	12	14	2,000	....	...	2,955	1,672	....	...	..	1,229	415	..	..	..		
Scotland	2,010	184	29	16	3,806	....	....	5	24	22	32	29	24	..	29	15	44	10,410	....	...	....	4,000	1,355	...	..	1,130	435	..	..	..		
Schuyler	1,550	1,417	...	...	3,091	807	761	4	45	20	17	29	22	..	7	27	34	2,350	....	...	1,307	2,639	3	...	..	....	72	89	91	6		
Saline	2,227	1,926	416	400	5,059	787	741	6	44	23	18	42	41	1	24	5	34	5,302	....	...	404	5,126	207	...	..	221	...	76	66	..		
St. Louis County	848	745	67	44	1,704	255	209	5	40	2	40	40	30	6	2	4	12	9,025	....	...	....	930	2,146	150	270	121	80	90	85	2		
*St. Louis City	34940	34136	1348	1253	71677	10135	11026	10	1410	24	195	133	55	47	12	..	59	625,000	....	...	....	13,400	7,960	3,500	..	....	...	..	..	12		
Shelby	1,662	1,575	170	145	3,402	957	851	4 ½	30	34	31	34	23	2	28	13	43	7,487	....	...	472	6,291	661	...	..	1,567	76	227	233	..		
Scott	657	570	34	25	1,226	241	158	4 ½	33	9	36	..	..	..	..	7	..	560	....	...	....	392	....	...	..	....	250	12	10	1		
Sullivan	2,028	1,768	5	6	3,916	1,187	716	3	26	30	17	29	19	..	6	37	43	7,270	....	...	2,127	1,872	....	...	..	605	...	155	143	6		
†Stoddard	151	118	3	1	273	....	....	5	96	3	36	..	..	..	..	3	3	120	....	...	....	423	4	...	..	....	...	69	57	..		
Vernon	910	748	21	12	1,697	176	159	3 ½	28	13	12	38	18	..	15	12	27	13,971	....	...	....	792	4	...	..	....	325	150	105	12		
Washington	1,354	1,252	91	75	2,763	....	....	..	..	..	..	..	..	..	..	..	..	....	....	...	....	....	....	...	..	....	...	..	..	..		
Warren	1,339	1,245	214	208	3,006	....	....	..	..	..	..	..	..	..	..	..	..	....	....	...	2,676	....	....	...	..	....	...	..	..	..		
Worth	952	921	4	...	1,894	394	379	3 ½	40	11	19	32	23	..	7	28	35	2,535	....	...	1,420	1,324	....	...	25	50	344	93	90	9		
Wright	1,077	715	1	1	2,000	....	....	2 ½	35	..	..	..	..	..	2	19	21	2,500	....	...	..	118	....	...	..	....	...	..	..	1		
Webster	1,447	1,431	47	45	2,763	359	420	4	..	20	6	34	30	..	5	26	31	2,540	....	...	....	1,411	161	50	..	1	...	143	191	4		

* More complete returns may be found in a separate table.

† Only one township reported.

PUBLIC SCHOOL FUND.

The capital of the Public School Fund at the commencement of the year 1865 amounted to:

State School Fund	$680,904 84
Seminary Fund	123,000 00
	$803,904 84

On October 1st, 1866, it was:

State School Fund	$872,521 98
Seminary Fund	131,550 00
	$1,004,071 98
Increase in two years	200,167 14

The capital belonging to the State School Fund is invested as follows:

In twenty Pacific Railroad Bonds, held by the office of Auditor, in trust for the fund	$ 20,000 00
In the Treasury	46,286 73
In Sinking Fund Railroad Debt	718,235 25
In two notes of Jameson & Cotting	88,000 00
	$872,521 98

The capital of the Seminary Fund is invested as follows:

In the Treasury	$ 50 00
In the Sinking Fund Railroad Debt	108,500 00
In stock of Bank at Chillicothe	23,000 00
	$131,550 00

The Bank of the State of Missouri held $761,967 96 of the Public School Fund until the end of July, 1866, when the Governor transferred the stock in said bank to Capt. James B. Eads. Previous to this transfer the bank had declared a dividend upon its stock for the year ending June 30, 1866, but has refused to pay the same to the State. For this reason the amount of income subject to apportionment among the public schools of the State was, for this year, only $43,518.64.

Some legislation is required to regulate the prompt payment of interest on the amounts invested in the Sinking Fund of the Railroad Debt (on the bonds and coupons paid by Capt. James B. Eads for the bank stock). The new school law ought also to be revised in those sections where the *income* of the fund is erroneously styled "fund;" the old distinction between the "fund," or capital, and the "State School Moneys," or income of the fund, should be retained.

The State Board of Education have ordered the investment of the money now in the Treasury and belonging to the capital of the fund.

The income of the fund for the year closing July, 1867, will amount to $49 520 27 State School Moneys, besides the deferred payment of dividend from the Bank of the State of Missouri above mentioned. One-fourth of the revenue tax for 1867 is also appropriated for the benefit of the State School Moneys, and when collected will be reported to the Superintendent of Public Schools.

STATE UNIVERSITY.

Like most other colleges, this institution has had its period of infancy. Soon after its organization it became somewhat involved in the political and religious disputes of the day, and a good deal of partisan feeling was engendered, which operated so much against it that for several years it barely maintained a lingering existence. Finally the civil war came on, and for nearly two years the grounds and buildings were occupied by soldiers. This of course produced a suspension of the college exercises.

At the close of the war the college was reorganized, but the small income derived from the "Seminary Fund" was insufficient to enable the curators to make the necessary repairs and conduct the institution in a manner to support the faculty and keep faith with those who entered the school. As a consequence, the institution is now burdened with a debt of $17,804. In addition to this misfortune, the President's house was burned in 1865; and in 1866 the death of its illustrious President, John H. Lathrop, completed the measure of its calamities. It was a blow severely felt. President Lathrop had become identified with the institution, and was to it a "tower of strength."

The University, in common with other educational interests, is now attracting the attention of the Legislature, and it is to be hoped that their assembled wisdom will devise some means whereby it may be extricated from its difficulties and sent forward unembarrassed, both financially and politically, till it shall attain the position of a University in fact as well as in name.

To do this, it must be remembered that money is the "sinews" of education as well as war. No college worthy of the name can be carried on successfully unless it is so endowed that it is certain to be free from financial embarrassment. We in the West have committed the mistake of diffusing our money and efforts too widely; too many new towns have been ambitious of having the name of a College added to their other attractions. We need more concentration, less show, and more reality; greater effort to increase the efficiency of the one we have already founded and less desire to create a rival. If we must divide our efforts, let us cause certain institutions to be

conducted with a view to a special course of education. One may be a literary, another a polytechnic, etc. But let all be strong, and let us undertake no more than we can do well. The present State University, as a literary institution, certainly demands all the support which the State is able to give. It is useless to ask, Why should our sons go to Eastern colleges for their education when we can just as well educate them at home? It is sufficient that they will go there or elsewhere, until we provide the means for their education here and convince the people that we are offering better instruction at home. It is of no use to preach duty or patriotism; interest governs action—then by all means let us place our one University in a position that shall make it for the *interest* not only of our own scholars, but those of other States, to come here for instruction.

Did we deem it entirely within our province, we would say more and give our reasons more fully for strongly urging the concentration of all available means upon one strong Literary University. But we believe that our legislators are fully convinced of the necessity for better educational facilities both in common schools and colleges, and meanwhile let it be remembered that legislation to be effective, like oratory, requires action.

As at present organized, the Faculty of the University is as follows:

DANIEL READ, LL.D., President, and Professor of Mental and Moral and Political Philosophy.

JOSEPH G. NORWOOD, M.D., Professor of Natural Science.

GEORGE H. MATTHEWS, A.M., Professor of Ancient Languages and Literature.

OREN ROOT, Jr., A.M., Professor of English Language and Literature, and Instructor in French and German.

JOSEPH FINCKLIN, A.M., Professor of Mathematics.

C. H. CROWELL, A.M., Principal of the Preparatory Department.

D. W. KURTZ, A.B., Tutor.

ST. LOUIS PUBLIC SCHOOLS.

These schools are under the control of a separate and distinct corporation. This corporation was first organized under an act of the Legislature approved Feb. 13, 1833. This act was founded upon that of Congress approved June 13, 1812, which gave to certain villages therein specified (among which was St. Louis), certain lots, out-lots, etc., for the support of Public Schools in those villages. On the 18th of April, 1833, the "Board of Directors of the St. Louis Public Schools" published their organization and proceeded to take steps to recover possession of the lands belonging to them. Hon. Thomas H. Benton was the first secretary of this Board.

By means of the revenue derived from the leasing of these lands the schools were maintained till 1849, when the population of the city having increased so much, this fund was found inadequate to the support of as many schools as the city demanded. An act was therefore passed by the Legislature empowering the city to raise a tax of not more than one-tenth of one per cent. for the purpose of aiding in the support of public instruction. This enabled the Board to make the schools entirely *free*. They continued so to be till during the war, when for two years it was found necessary to charge a small fee. Since that time further powers of taxation have been granted by the Legislature, till now the schools are placed upon a firm foundation as *free schools*. Our Public Schools are now under efficient management and rank with those of the most favored cities of the Union. The system now comprehends not only the usual Grammar Schools, but a High School and Normal School. The latter is for the especial training of teachers for Public Schools.

The following tables are extracted from the "Twelfth Annual Report of the Board of Directors:"

EXTRACT

From the Annual Report of the Superintendent of the St. Louis Public Schools.

OFFICE OF THE SUPERINTENDENT,
ST. LOUIS, *August* 1, 1866.

To the Honorable Board of Public Schools:

GENTLEMEN—I herewith submit the following brief account of the operations of the Public Schools during the years 1865-66.

IRA DIVOLL, *Superintendent.*

GENERAL STATISTICS.

SCHOOL HOUSES.

Number of School Houses		30
Number of School Rooms		201
Owned by the Board (all brick)	25	
Rented	5	
Heated with stoves	23	
Heated with furnaces	7	
Estimated value of School sites		$247,700 00
Estimated value of Buildings and Furniture		285,740 95
Total value of property used for School purposes		$533,440 95

TEACHERS.

Average number of teachers, including music teachers		204
Males	18	
Females	186	
Principals	33	
Assistants	169	
Music teachers	2	
Drawing teacher	1	
Number in the Normal School		3
Number in the High School		9
Number in the District Schools		190

PUPILS.

Number of pupils enrolled in all the schools		14,556
Boys	7,256	
Girls	7,300	
Normal School—girls	76	
High School—boys, 115; girls, 171—total	285	
District Schools—boys, 7.141; girls, 7,053—total	14,194	
Average number *belonging* for 1865-6		9,593
Average daily *attendance*		8,846
Per cent. of attendance		91

The total enrollment, the average number belonging, the average daily attendance, and the percentage of attendance, have been as follows during the last nine years:

Years.	Total Enrollment.	Average No. Belonging.	Average Attendance.	Percent. of Attendance.
1865—66	14,556	9,593	8,846	91
1864—65	13,926	9,090	8,121	90½
1863—64	12,349	7,715	7,058	91
1862—63 *	8,105	5,272	4,752	91
1861—62 *	5,787	3,654	3,364	93
1860—61	12,166	8,098	7,427	92
1859—60	11,342	7,040	6,422	91
1858—59	10,111	6,253	5,739	92
1857—58	9,769	5,814	5,361	92

CHARACTER OF ATTENDANCE.

Whole number of school days	200
Number who attended 200 days	303
" " from 180 to 200 days	3,709
" " 160 to 180 days	1,861
" " 140 to 160 days	1,232
" " 120 to 140 days	1,062
" " 100 to 120 days	972
" " 80 to 100 days	915
" " 60 to 80 days	1,004
" " 40 to 60 days	1,147
" " 20 to 40 days	1,100
" " less than 20 days	1,171
" not absent during their enrollment	784
" absent but once during their enrollment	742
" not tardy during their enrollment	7,999
" tardy but once during their enrollment	2,294
" of cases of tardiness	19,905
" readmitted once	2,715
" readmitted twice	776
" readmitted three times	277

*The small attendance for 1861-2, and 1862-3, was owing mainly to the fact that a tuition fee was charged during those two years.

AGES OF PUPILS.

No. of pupils	6	years of age	1,683	No. of pupils	14	years of age	683
"	7	"	1,992	"	15	"	452
"	8	"	1,998	"	16	"	231
"	9	"	1,798	"	17	"	121
"	10	"	1,770	"	18	" and over	121
"	11	"	1,376				
"	12	"	1,352	Total number			14,556
"	13	"	979				

The whole number of pupils enrolled are represented by the different occupations of society, as follows:

Children of	agents	298	Children of	manufacturers	767
"	artists	104	"	mechanics	3,533
"	barkeepers	262	"	merchants	1,844
"	boatmen	894	"	professional men	598
"	butchers	218	"	public officers	580
"	clerks	600	"	seamstresses	416
"	draymen and teamsters	393	Unclassified		1,885
"	farmers and gardeners	365			
"	laborers	1,450	Total		14,556
"	laundresses	349			

The birth-places are as follows:

Born in St. Louis	8,653
Born in Missouri out of St. Louis	1,174
Born elsewhere in the United States and territories	3,728
Born in foreign countries	1,001
Total	14,556

SUMMARY OF TEACHERS' SALARIES FOR THE SCHOLASTIC YEAR 1866-67.

NORMAL SCHOOL.		
One female principal at		$2,000
One female assistant at		1,100
One female assistant at		850
HIGH SCHOOL.		
One male principal at		2,750
One male assistant at		2,000
Three male assistants at	$1,700	5,100
One female assistant at		1,200
Two female assistants at	1,000	2,000
One female assistant at		700
DISTRICT SCHOOLS.		
Nine male principals at	1,700	15,300
Three male principals at	1,500	4,500
One male assistant at		1,500
Three female principals at	1,000	3,000
Eight female principals at	900	7,200
Four female principals at	800	3,200
Three female principals at	700	2,100
Three female head assistants at	1,000	3,000
Thirty-five female assistants at	650	22,750
Eighty-two female assistants at	600	49,200
Twenty-five female assistants at	550	13,750
Twenty-four female assistants at	500	12,000
Six German-English assistants at	700	4,200
Two German-English assistants at	650	1,300
Two German-English assistants at	600	1,200
MUSIC TEACHERS.		
Two music teachers at	1,500	3,000
Aggregate amount		$164,900

SAINT LOUIS PUBLIC SCHOOLS—*Balance Sheet for the year ending July 31, 1866.*

ACCOUNTS.		FACE OF LEDGER. JULY 31, 1866.		REVENUE AND EXPENSES ST. LOUIS PUBLIC SCHOOLS.		BALANCES.	
		Dr.	Cr.	Dr.	Cr.	Liabilities. Dr.	Assets. Cr.
Real estate for revenue		$1,888,338 91	$50,221 00				$1,838,117 91
Real estate for school purposes		581,424 23					581,424 23
Bills receivable		54,045 34	10,826 70				43,218 64
Durkee and Edgar, Treasurers		340,770 01	331,694 36				9,075 65
August Pasquier, Bailiff		46,628 02	43,788 71				2,839 31
George M. Fichtenkam, Secretary		1,153 85	1,100 18				53 67
Fuel account		7,099 76	4,899 76				2,200 00
Furniture account		4,239 44	2,733 05				1,506 39
Delinquent taxes		10,880 02	10,441 70				438 32
Delinquent rents		11,135 91	11,045 91				90 00
Bills payable		25,333 32	86,638 64			$ 61,305 32	
Rent bills account			42,104 73	$42,104 73			
Interest account		2,582 02	256 67	256 67	$2,582 02		
Township fund interests			1,208 87	1,208 87			
County school fund			5,463 79	5,463 79			
Furniture fund			3,725 95	3,725 95			
City mill tax			163,923 28	163,923 28			
School expenses, as per table annexed		187,253 34			187,253 44		
General expense, supplies, etc.		24,197 73			24,197 73		
Balance revenue over expenses					2,650 10	2,650 10	
St. Louis Public Schools:							
Balance of last year	$2,430,554 61						
Less delinquent rents canceled by order Board	11,045 91						
	2,419,508 70						
Less Mound School, now leased	4,500 00						
	$2,415,008 70		2,415,008 70			2,415,008 70	
Add net revenue of this year	2,650, 10	$3,185,082 00	$3,185,082 00				
Net balance July 31, 1866	$2,417,658 80			$216,683 29	$216,683 29		
						$2,478,964 12	$2,478,964 12

GEORGE M. FICHTENKAM, *Secretary.*

SAINT LOUIS PUBLIC SCHOOLS.—Continued.

A Detailed Statement of Expenses for the year ending July 31, 1866.

Names of Schools.	Teachers' Salaries.	Janitors' Salaries.	Improvement and Repairs.	Fuel Account.	Supplies Account	Furniture Account.	Rent Account.	Total amount for each School.
Mound	$1,556 00	$125 00	$171 73	$48 13	$92 40	$7 50		$2,000 00
Jackson	2,587 50	250 00	400 27	78 13	57 16			3,373 06
Webster	8,499 65	768 83	713,46	278 48	147 14			10,407 56
Clay	8,531 00	605 00	503 52	251 79	132 00	16 00		10,039 31
	$145,403 80	$11,206 50	$11,914 17	$4,441 96	$3,408 91	$2,538 05	$2,703 00	$181,616 39
Evening Schools	4,641 00	422 00		369 30	204 76			5,637 05
	$150,044 80	$11,628 50						$187,253 44
GENERAL EXPENSES.								
Music Teachers' Day School	3,000 00							3,000 00
Music Teachers' Evening Schools	54 00							54 00
Office Janitor		465 00						465 00
	$153,098 80	$12,093 50	$11,914 17	$4,811 26	$3,613 66	$2,538 05	$2,703 00	$190 772 44

A detailed Statement of Expenses for the year ending July 31, 1866.

Names of Schools.	Teachers' Salaries.	Janitors' Salaries.	Improvement and Repairs.	Fuel account	Supplies account.	Furniture account.	Rent account.	Total am't for each School
Normal	$ 4,455 00		$ 119 76		$160 40	$ 36 00		$ 3,771 16
High	13,174 50	$650 83	1,934 92	$364 02	206 05			16,330 32
Gravois	633 75		245 52	67 78	68 79	144 25		1,160 09
Shepard	2,780 00	250 00	264 51	101 72	62 48			3,458 71
Charless	2,620 00	250 00	482 74	75 24	40 06			3,468 04
Lafayette	8,897 25	650 83	1,348 79	332 00	113 82			11,342 69
Carroll	2,075 00	225 83	9 02	47 41	78 30	6 00		2,441 56
Compton	700 00	80 00	85	26 16	6 55		$144 00	957 56
Madison	6,564 10	403 33	302 03	101 06	203 24	548 50	354 00	8,486 26
Clark	3,996 00	403 33	195 95	136 37	67 47	398 55		5,197 67
Chouteau	2,651 50	275 00	368 94	74 27	57 50			3,427 21
Laclede	5,772 00	445 83	400 80	155 83	96 47	17 00		6,887 93
Washington	8,242 00	678 35	380 67	293 92	196 08	1 25		9,792 27
Monroe	1,607 00	168 00	195 73	78 89	38 95	3 75	105 00	2,197 32
Marshall	2,597 25	250 00	35 36	69 31	43 10	8 00	200 00	3,203 02
Eliot	5,119 00	530 83	366 17	212 06	93 97			6,322 03
Eliot Branch	2,066 90	250 00	116 88	76 32	229 39	140 50	1,200 00	4,079 99
Benton	5,063 75	473 00	190 24	138 65	87 12			5,952 76
Stoddard	2,572 50	250 00	289 20	90 13	56 80	17 00		3,275 63
Franklin	14,291 40	925 85	380 59	306 55	366 06	105 50		16,375 95
Adams	1,300 00	100 00	11 80	61 50	7 45		300 00	1,780 75
Jefferson	7,821 25	595 83	428 57	242 00	218 43	337 25		9,643 33
Jefferson Branch	2,878 50	330 00	872 73	84 94	142 09	499 50	400 00	5,207 76
Carr	6,516 50	370 00	325 02	177 05	153 50	208 50		7,750 57
Hamilton	2,527 25	250 00	375 03	130 15	48 81			3,331 24
Everett	8,307 25	650 83	483 37	342 10	137 33	33 00		9,953 88

REAL ESTATE AND IMPROVEMENTS FOR SCHOOL PURPOSES.

Names of Schools and School Lots.	Where Located.	Estimated value of Ground.	Estimated value of Houses and Furniture.	Total Amount.
High	Corner 15th and Olive streets	$35,000 00	$40,000 00	$75,000 00
Shepard	Near Marine Hospital	3,000 00	5,000 00	8,000 00
Charless	Kingsbury street, near Gravois	3,000 00	5,000 00	8,000 00
Lafayette	Ann avenue and Decatur street	7,500 00	18,304 50	25,804 50
Carroll	Corner Carroll and Buel streets	9,000 00	3,141 08	12,141 08
Carroll, new	Corner Carroll (paid on account)		25,762 89	25,762 89
Madison	Corner 7th and Hickory streets	Leased.	4,000 00	4,000 00
Clark	7th, between Hickory and Labadie	9,000 00	3,000 00	12,000 00
Chouteau	Cozzens street, near Pratt avenue	3,000 00	5,191 27	8,191 27
Laclede	Corner 5th and Poplar streets	17,000 00	6,200 00	23,200 00
Washington	11th, between Poplar and Spruce	12,500 00	18,000 00	30,500 00
Eliot	Corner 15th and Pine streets	15,000 00	7,264 50	22,264 50
Benton	6th, between Locust and St. Charles	30,000 00	5,000 00	35,000 00
Franklin	17th street and Christy avenue	15,000 00	35,000 00	50,000 00
Stoddard	Lucas and Ewing avenue	7,000 00	5,000 00	12,000 00
Jefferson	Corner 9th and Washington streets	16,000 00	5,000 00	21,000 00
Carr	Corner 16th and Carr streets	7,300 00	4,000 00	11,300 00
Hamilton	Corner 27th and Davis streets	6,000 00	5,000 00	11,000 00
Everett	8th, between O'Fallon and Cass av.	11,000 00	18,000 00	29,000 00
Jackson	Maiden Lane, near 19th street	4,000 00	5,000 00	9,000 00
Webster	11th street, near Monroe	25,000 00	18,340 50	43,340 50
Webster, new	11th street (paid on account)		26,802 98	26,802 98
Clay	Bellefontaine and Farrar, including new lot (paid $3,600).	9,600 00	16,465 23	26,065 23
Gravois	Corner Wyoming and Gravois	2,800 00	1,268 00	4,068 00
		$247,700 00	$285,740 95	$533,440 95
Pestalozzi lt	Corner 8th and Pestalozzi streets			3,000 00
Curran "	Corner Carroll and Curran streets			16,500 00
Lamonte "	Caroline, near Park avenue			2,500 00
Penrose "	Penrose, between Clay and Glasgow			3,500 00
Parsons "	Parsons and Spring streets			3,000 00
O'Fallon "	Grand avenue and corner 18th street			3,000 00
16th street "	Between Cass av. and O'Fallon street			5,208 28
Eugenia "	Eugenia street			11,275 00
		$247,700 00	$285,740 95	$581,424 23

THE DISTRICT SCHOOLS.

These schools are *twenty-seven* in number, having accommodations (including the two new houses) for 10,575 pupils. They are distributed among the several Wards of the city, as fol ows:

Four in the First Ward.
Two in the Second Ward.
Three in the Third Ward.
Three in the Fourth Ward.
Three in the Fifth Ward.
Two in the Sixth Ward.
Two in the Seventh Ward.
Three in the Eighth Ward.
Two in the Ninth Ward.
Three in the Tenth Ward.

THE TABLES which follow give very important statistical information concerning the Day Schools.

TABLE No. I tells the name of every School—Where located—When built—Value of building and furniture—Value of lot—Size of lot—Size of House—How warmed—Number of seats.

TABLE No. II. shows the character of attendance in every School—Number not absent—Number not tardy—Number of tardinesses—Number readmitted.

TABLE No. III shows the ages of all the pupils who attended during the year.

TABLE No. IV shows the occupations of the parents and guardians of the pupils.

TABLE No. V gives the birth-places of the pupils.

TABLE No. VI shows the number of boys and the number of girls enrolled during the year—The number of transfers—The average number belonging—The average daily attendance—The percent. of attendance—The number of pupils to each teacher—The average number of teachers—The amount of teachers' salaries—The cost of tuition per capita—The cost of incidentals—The total cost per capita.

TABLE No. VII gives a historical statement concerning the Schools since 1850.

TABLE I.

Showing the names, locations, dimensions, and estimated value

Wards.	NAMES.	WHERE LOCATED.	When Built.
7	Normal	Franklin Building	
6	High	Fifteenth and Olive	1855
1	Gravois	Gravois and Wyoming	
1	Shepard	Near Marine Hospital	1859
1	Charless	Kingsbury, near Gravois	1859
1	Lafayette	Ann and Decatur	1853
2	Carroll	Buel and Carroll	1858
2	New Carroll	Buel and Carroll	1866
2	Compton	Park avenue and ——	
3	Madison	Seventh and Hickory	1855
3	Clark	Seventh, near Labadie	1846
3	Chouteau	Cozzens, near Pratte avenue	1859
4	Laclede	Fifth and Poplar	1851
4	Washington	Eleventh, near Spruce	1859
4	Monroe	Pratte and Clark avenues	
5	Marshall	Sixteenth and Walnut	
5	Eliot	Fifteenth and Pine	1850
5	Eliot Branch	Pine, near Twelfth	
6	Benton	Sixth, near St. Charles	1842
6	Stoddard	Lucas and Ewing avenues	1859
7	Franklin	Seventeenth and Christy	1857
7	Adams	Twenty-second and Morgan	
8	Jefferson	Ninth and Wash	1848
8	Jefferson Branch	Tenth and Carr	
8	Carr	Sixteenth and Carr	1855
9	Hamilton	Twenty-fifth and Davies	1859
9	Everett	Eighth, near Cass avenue	1859
10	Jackson	Maiden Lane, near Reservoir	1859
10	Webster	Eleventh and Jefferson	1853
10	New Webster	Twelfth and Jefferson	1866
10	Clay	Bellefontaine and Farrar	1859

*Main Building, 86x33; Wings, Front and Rear, 10x30 each.

TABLE I—CONTINUED.

of the School-houses, size and value of the grounds, etc.

Estimated value of Buildings and Furniture.	Estimated value of Grounds.	Size of Lots.	Size of House.	No. of Stories.	No. School Rooms.	How Warmed.	No. of Seats.
.....	....	....	....	.....	4	Stoves	80
$40,000 00	$35,000	150x106	84x67	3 b & h.	9	Furnaces..	400
1,268 00	2,800	....	....	2	2	Stoves	106
5,000 00	3,000	100x150	58x32	2	4	Stoves	224
5,000 00	3,000	175x125	53x32	2	4	Stoves	224
18,304 50	7,500	150x140	50x80	3 & c	12	Furnaces .	688
3,141 08	9,000	140x150	75x32	1	1	Stoves	60
40,000 00	....	....	75x58	3	12	Furnaces .	680
Rented.	....	....	....	1	1	Stoves	50
4,000 00	Leased.	56x127	40x75	2	8	Stoves	342
3,000 00	9,000	74x160	29x52	3	6	Stoves	266
5,191 27	3,000	....	58x32	2	4	Stoves	216
6,000 00	17,000	70x128	42x71	2 & c	7	Furnaces .	346
18,000 00	12,500	125x152	80½x58	3	12	Stoves	672
Rented.	....	....	....	1	2	Stoves	175
Rented.	Leased.	75x100	....	2	4	Stoves	200
7,264 50	15,000	79x109	42x71	2 & c	8	Furnaces .	410
Rented.	....	....	....	3	4	Stoves	180
5,000 00	30,000	60x135	42x62	2 & b	6	Stoves	360
5,000 00	7,000	103x134	58x32	2	4	Stoves	224
35,000 00	15,000	107x140	70x100	3 & b	20	Stoves	904
Rented.	....	....	....	2	2	Stoves	112
5,000 00	16,000	83x110	42x72	3 & c	10	Stoves	436
Rented.	....	....	....	2	4	Stoves	298
4,000 00	7,300	76x155	40x75	2	8	Stoves	404
5,000 00	6,000	132x165	58x35	2	4	Stoves	224
18,000 00	11,000	172x127½	80½x58	3	12	Stoves	672
5,000 00	4,000	150x138	58x32	2	4	Stoves ...	224
18,340 50	25,000	cir 300 ft di.	50x80	3 & c	12	Furnaces .	688
35,000 00	....	....	86x—*	3	9	Furnaces .	518
14,171 33	6,000	100x250	74½x56	3	12	Stoves	672
$305,681 18	$244,100				211		11,055

TABLE II.

Showing the character of the attendance

NAMES OF SCHOOLS.	No. attending 200 days.	180—200.	160—180.	140—160.	120—140.	100—120.	80—100.
Normal	7	29	8	5	3	3	2
High.	40	115	25	19	13	16	11
Gravois	.....	11	10	9	4	9	6
Shepard	1	56	33	37	34	19	13
Charless	1	43	27	14	32	19	35
Lafayette	10	332	100	59	54	56	40
Carroll	20	87	15	15	8	16	12
Compton	.....	5	10	10	7	5	1
Madison	24	189	32	30	33	26	33
Clark	6	132	40	32	23	32	28
Chouteau	.....	70	51	37	30	13	18
Laclede.	3	177	61	25	49	51	21
Washington.	25	264	124	57	59	62	69
Monroe	5	59	23	13	8	10	14
Marshall	3	56	38	16	23	27	26
Eliot	22	217	128	86	70	66	62
Benton	9	112	51	37	36	40	49
Stoddard	8	119	86	20	14	16	4
Franklin	23	428	172	120	95	58	81
Adams	11	25	9	11	6	7	12
Jefferson	24	202	262	111	88	70	56
Carr.	10	206	64	45	28	27	27
Hamilton	8	65	39	37	22	41	29
Everett	24	236	195	162	130	120	94
Jackson	.....	24	22	29	22	26	32
Webster.	16	330	129	75	60	66	62
Clay.	3	120	107	111	111	71	78
Total.	303	3709	1861	1232	1062	972	915

TABLE II—CONTINUED.

of the Pupils for the years 1865–66.

60—80.	40—60.	20—40.	Less than 20.	Total.	Not absent.	Absent but once.	Not tardy.	Tardy but once.	No. cases of tardiness.	Readmitted once.	Readmitted twice	Readmitted three times.
5	5	4	5	76	7	8	48	14	67	18	6	1
6	12	17	12	286	51	24	191	43	164	.....	.....	.....
9	8	14	11	91	.....	.....	1	1	250	15	.....	.....
37	20	28	23	301	7	7	207	50	237	87	31	19
38	15	15	31	270	6	8	160	49	248	35	11	2
45	43	52	50	841	10	33	534	95	805	137	48	9
19	8	18	10	229	36	40	82	30	71	18	1	.....
3	4	14	7	66	1	1	22	14	167	.....	.....	.....
21	47	47	74	556	59	40	381	77	505	43	12	3
21	23	11	32	380	19	17	208	67	385	86	17	7
29	16	13	28	305	11	11	121	58	688	52	24	7
31	34	25	33	520	24	28	325	111	449	105	8	3
79	73	86	84	982	103	21	750	200	555	244	101	32
27	23	27	10	219	5	37	181	16	347	4	.....	.....
14	32	23	25	283	9	3	120	53	552	65	12	2
56	52	53	43	855	47	48	476	129	762	170	40	26
32	48	67	61	542	43	39	249	127	861	100	32	2
14	14	6	7	308	8	20	211	46	175	52	17	8
78	106	83	124	1368	59	96	762	197	2893	286	79	28
17	32	34	38	202	13	9	100	43	268	47	5	2
72	93	89	77	1144	79	61	461	186	1468	236	44	11
36	55	49	43	590	33	38	313	131	656	120	23	2
40	39	32	70	422	34	29	224	65	698	110	35	12
87	82	84	49	1263	74	57	682	169	2104	195	76	26
33	48	40	58	334	10	12	142	47	723	121	13	.....
60	118	46	54	1016	16	51	655	130	856	153	42	26
95	97	123	112	1028	20	3	393	146	2951	216	99	48
1004	1147	1100	1171	14476	784	742	7999	2294	19905	2715	776	277

TABLE III.

Showing the number of Pupils of different ages

NAMES OF SCHOOLS.	Pupils 6 yrs old.	7 years old.	8 years old.	9 years old.
Normal	....	....	....	....
High	....	....	....	....
Gravois	21	19	17	5
Shepard	63	49	45	41
Charless	66	42	37	24
Lafayette	71	114	136	123
Carroll	26	41	49	44
Compton	5	16	12	12
Madison	58	60	73	75
Clark	25	50	53	41
Chouteau	56	62	43	41
Laclede	49	60	62	72
Washington	104	122	130	111
Monroe	49	25	39	32
Marshall	55	52	57	49
Eliot	92	85	95	85
Benton	55	86	93	87
Stoddard	20	50	38	70
Franklin	125	158	168	142
Adams	49	40	28	18
Jefferson	102	168	154	154
Carr	78	96	95	78
Hamilton	32	65	80	54
Everett	164	172	184	164
Jackson	77	64	56	39
Webster	116	134	121	125
Clay	125	159	130	112
Total	1683	1992	1998	1798

TABLE III—Continued.

registered in each School for the years 1865–66.

10 years old.	11 years old.	12 years old.	13 years old.	14 years old.	15 years old.	16 years old.	17 years old.	18 years old.	Total.
.....	.....	.....	.....	.....	1	21	18	36	76
.....	.....	1	14	39	79	68	42	43	286
8	10	10	1	.....	.....	.....	.....	.....	91
24	24	23	13	7	1	1	.....	.....	301
25	18	19	9	12	2	1	2	.....	257
123	120	115	53	33	14	8	5	4	919
27	17	14	5	1	1	.....	.....	1	229
11	3	6	2	1	.....	.....	.....	.....	68
83	62	57	47	29	3	5	1	1	554
62	56	34	27	10	8	3	1	1	371
37	13	25	13	4	3	1	.....	.....	298
77	46	60	37	23	14	5	2	.....	507
140	95	95	97	49	38	15	8	3	1007
21	10	16	7	12	5	2	1	2	221
32	21	14	9	1	1	1	.....	.....	392
88	94	94	76	61	35	13	6	3	827
57	46	41	30	19	15	10	4	4	547
41	24	26	20	16	1	.....	.....	.....	306
127	125	132	124	122	76	28	13	7	1347
14	5	8	3	2	.....	1	.....	.....	168
170	132	104	72	47	44	14	3	3	1167
78	58	58	40	18	13	2	.....	1	615
47	41	40	27	16	15	3	.....	.....	422
146	141	132	86	63	26	9	4	4	1295
32	19	17	16	8	4	1	1	2	337
134	95	115	85	45	28	9	3	3	1013
156	101	96	66	45	25	10	7	3	1035
1770	1376	1352	979	683	452	231	121	121	14556

TABLE IV.

Showing the number of Pupils falling to the different occupations

NAMES OF SCHOOLS.	Agents.	Artists.	Barkeepers.	Boatmen.	Butchers.	Clerks.	Draymen and Teamsters.
Normal	5	.....	.....	.....	.....	2	.....
High	28	.....	.....	4	.....	13	.....
Gravois	.....	.....	2	.....	.....	1	.....
Shepard	.....	.....	7	1	10	10	16
Charless	.....	3	3	13	17	7	5
Lafayette	8	4	33	25	22	27	25
Carroll	.....	.....	3	9	.....	.....	5
Compton	.....	1	.....	.....	.....	1	3
Madison	9	8	15	68	5	24	17
Clark	6	1	12	12	4	15	4
Chouteau	1	.....	5	9	33	6	17
Laclede	8	7	20	27	.....	16	2
Washington	26	15	21	32	6	69	15
Monroe	.....	.....	2	18	8	4	8
Marshall	8	.....	4	9	2	23	10
Eliot	28	3	8	35	.....	48	18
Benton	3	5	6	2	.....	12	2
	14	8	13	11	.....	29	7
Stoddard	17	4	2	18	4	15	12
Franklin	35	16	17	76	18	76	32
Adams	3	.....	.....	15	6	3	2
Jefferson	12	1	21	76	2	34	16
Carr	12	.....	9	34	.....	20	15
Hamilton	4	.....	.....	27	4	9	43
Everett	25	16	30	155	22	50	45
Jackson	.....	.....	.....	12	2	2	7
Webster	42	9	15	108	5	57	20
Clay	4	3	14	98	48	27	47
Total	298	104	262	894	218	600	393

TABLE IV—Continued.

of the Parents and Guardians as registered for the years 1865–66.

Farmers and Gardeners.	Laborers.	Laundresses.	Manufacturers.	Mechanics.	Merchants.	Professional.	Public Officers.	Seamstresses.	Unclassified.	Total.
2	.....	1	1	17	8	5	1	3	31	76
12	9	.....	10	28	72	28	19	.....	63	286
16	20	2	4	17	4	.....	2	.....	23	91
13	27	5	41	69	11	9	5	10	57	301
14	38	7	3	83	5	4	6	1	48	257
11	100	12	51	372	91	40	41	21	36	919
6	39	7	2	116	17	7	7	7	4	229
10	13	2	4	13	6	1	7	.....	7	68
6	35	17	85	82	65	20	13	17	68	554
1	15	8	12	121	58	22	13	20	47	371
11	18	10	.....	143	17	2	8	6	12	298
9	65	22	17	64	121	21	8	23	77	507
37	122	26	55	193	164	53	46	25	104	1007
5	10	2	8	88	16	3	5	4	40	221
1	7	1	5	54	72	11	21	6	58	292
15	18	5	45	135	188	82	61	21	117	827
1	16	1	22	8	32	14	18	2	13	157
4	57	12	20	115	46	19	7	18	10	390
13	20	4	21	46	67	20	19	4	20	306
45	62	15	107	266	226	53	48	45	210	1347
2	9	7	10	27	3	2	6	3	70	168
7	100	43	38	265	178	30	19	57	268	1167
4	96	12	7	203	46	26	20	28	83	615
6	96	19	7	152	17	.....	5	17	16	422
31	110	75	95	161	82	71	35	32	260	1295
11	156	6	3	85	19	1	11	1	21	337
21	48	8	36	374	135	37	51	15	32	1013
51	144	20	58	238	78	17	78	20	90	1035
365	1450	349	767	3533	1844	598	580	416	1885	14556

TABLE V.

Showing the birth-places of the scholars

NAMES OF SCHOOLS.	St. Louis.	Missouri out of St. Louis.	N. E. States.	New York and New Jersey.	Pennsylvania and Delaware.	Southern States.	Arkansas.	Tennessee.	Kentucky.	Ohio.
Normal	26	8	5	4	3	3	....	1	2	5
High	130	32	15	16	8	16	1	3	6	19
Gravois	85	1	....	....	....	....	....	....	....	1
Shepard	217	12	....	5	6	8	....	3	1	7
Charless	212	4	....	1	....	3	....	1	4	5
Lafayette	588	45	1	47	32	15	4	3	6	25
Carroll	157	6	....	5	....	3	2	....	1	14
Compton	56	....	....	4	....	....	....	....	....	3
Madison	381	18	2	18	10	9	1	....	5	12
Clark	247	26	3	13	7	12	....	1	9	7
Chouteau	208	11	4	11	5	5	....	4	....	8
Laclede	331	20	3	16	5	18	....	1	4	21
Washington	550	109	14	48	25	33	4	7	19	49
Monroe	114	47	6	9	2	1	2	7	10	4
Marshall	172	42	6	9	10	3	....	1	2	7
Eliot	430	126	16	47	16	35	4	8	23	41
Benton	60	15	4	16	4	6	1	1	8	10
	190	27	1	28	7	17	1	5	6	17
Stoddard	228	25	2	9	2	7	1	3	5	5
Franklin	782	118	22	63	36	36	5	15	26	59
Adams	90	20	1	2	1	9	1	....	3	2
Jefferson	633	66	17	63	32	55	1	12	21	42
Carr	398	33	8	72	17	10	1	5	4	19
Hamilton	262	21	11	22	7	12	....	3	8	13
Everett	746	63	56	51	20	15	5	16	14	28
Jackson	262	21	4	10	6	6	....	2	....	4
Webster	500	138	15	84	18	36	7	5	27	44
Clay	597	122	10	35	15	21	1	8	26	35
Total	8653	1174	226	612	294	394	42	115	230	516

TABLE V—CONTINUED.

registered in each school for the years 1865–66.

Michigan.	Indiana.	Illinois.	Iowa.	Wisconsin.	California, etc.	Brit. America.	Great Britain.	Ireland.	German States	France.	Other European States.	Unknown.	Total.
1	1	6	1	.....	.....	.....	4	4	1	1	....	....	76
1	4	15	1	3	.....	1	3	3	3	....	2	4	286
.....	.....	.....	.....	.....	1	.....	.....	.....	2	....	....	1	91
.....	4	17	.....	4	.....	1	1	.....	12	....	....	3	301
.....	.....	7	1	.....	1	3	.....	1	14	....	....	....	257
2	6	33	9	9	2	10	5	.....	70	3	2	2	919
.....	2	13	4	10	1	.....	.....	.....	11	....	....	....	229
.....	.....	3	.....	.....	.....	.....	1	.....	1	....	....	....	68
4	1	26	6	2	3	2	2	2	36	2	2	10	554
3	.....	17	4	3	.....	3	.....	.....	15	1	....	....	371
1	.....	9	2	.....	3	9	4	1	8	5	....	....	298
1	1	31	10	11	5	1	4	1	6	9	2	6	507
4	17	50	23	5	5	7	9	8	13	1	1	7	1007
1	3	7	.....	1	2	1	2	2	.....	....	....	....	221
2	1	18	7	2	2	2	.....	1	4	....	1	....	292
1	7	31	5	3	6	4	9	3	4	....	3	5	827
2	4	8	2	1	3	2	3	3	1	....	3	....	157
3	5	37	5	.....	5	2	11	10	5	6	2	....	390
2	3	4	1	7	.....	.....	3	5	4	....	....	....	306
3	8	78	18	6	7	16	16	8	8	3	1	3	1347
1	2	14	4	.....	1	. ....	1	4	5	....	....	7	168
4	8	61	18	8	11	12	34	11	17	1	2	38	1167
1	3	27	17	4	4	13	18	9	9	1	1	1	615
4	5	22	1	4	3	4	10	12	.....	....	1	....	422
12	15	55	12	4	19	26	40	65	15	2	6	10	1295
1	.....	6	8	1	.....	.....	8	2	1	....	....	....	337
4	13	65	19	8	16	9	23	9	8	1	....	....	1013
1	6	66	6	12	6	6	21	5	35	....	1	....	1035
56	119	726	184	108	106	134	227	109	308	36	30	97	14556

TABLE VI.

Showing the enrollment and attendance of Scholars, the cost per

NAMES OF SCHOOLS.	Whole No. Enrolled.			No. transferred.	Average number belonging.	Average daily attendance.
	Boys.	Girls.	Total.			
Normal	....	77	77	....	56	53
High	115	171	285	....	234	224
Gravois	43	48	91	....	53	45
Shepard	169	142	311	10	190	168
Charless	154	123	277	20	168	147
Lafayette	495	424	919	32	646	599
Carroll	132	103	235	6	172	166
Compton	41	29	70	11	37	31
Madison	574	....	574	20	389	370
Clark	....	382	382	9	274	253
Chouteau	145	173	318	20	204	183
Laclede	259	273	532	29	366	340
Washington	604	457	1061	52	640	606
Monroe	94	140	234	12	130	123
Marshall	201	105	306	7	170	154
Eliot and branch	158	734	892	65	591	550
Benton	430	184	614	66	319	296
Stoddard	160	160	320	13	237	226
Franklin	736	709	1445	101	943	879
Adams	101	101	202	22	90	80
Jefferson and branch	608	659	1267	102	763	687
Carr	335	303	638	22	413	388
Hamilton	203	219	422	23	228	205
Everett and Mound	608	728	1336	41	827	768
Jackson	178	163	341	8	165	149
Webster	508	546	1054	51	683	631
Clay	561	502	1063	39	605	525
	7611	7655	15,266	781	9593	8846
Evening schools	1432	240	1,672	....	861	751
Music teachers	....	....	.....	....	....	....

TABLE VI—Continued.

Scholar, and the total cost of the Schools for 1865-66.

Percent. of attendance.	Av. of pupils to each teacher.	Average number of teachers.	Amount of teachers' salaries.	Rate per scholar on average No. belonging.	Incidental, expenses, including Janitors' salaries, etc.	Cost of incidentals per scholar.	Total cost of teachers' salaries and incidentals.	Total cost per scholar on av'ge No. belonging.
.95	19	3	$3,455 00	61 69½	$316 16	5 64½	$3,771 16	67 34½
.96	26	9	13,177 50	56 31½	3152 82	13 50	16,330 32	69 81½
.81½	53	1	633 75	11 96	526 34	9 93	1,160 09	21 89
.88	47½	4	2,780 00	14 63	678 71	3 57	3,458 71	18 20
.87½	42	4	2,620 00	15 60	848 04	5 05	3,468 04	20 65
.92½	50	13	8,897 25	13 78	2445 44	3 78	11,342 69	17 56
.96	57	3	2,075 00	12 06	366 56	2 13	2,441 56	14 19
.83	37	1	700 00	19 00	257 56	6 96	957 56	25 96
.95	46	8½	6,564 00	16 87	1922 26	4 94	8,486 26	21 81
.92½	46½	6	3,996 00	14 59	1201 67	4 38	5,197 67	18 97
.90	57	4	2,651 00	13 00	776 21	3 80	3,427 21	16 80
.93	49	7½	5,772 00	15 77	1115 93	3 05	6,887 93	18 82
.95	53	12	8,242 00	12 87	1550 27	2 42	9,792 27	15 29
.94	43	3	1,607 00	12 36	590 32	4 54	2,197 32	16 90
.89	43	4	2,597 25	15 28	605 77	3 56	3,203 02	18 84
.93	49	12	7,185 90	13 83	3216 12	5 44	10,402 02	19 27
.92½	53	6	5,063 75	15 87	889 01	2 78	5,952 76	18 65
.95	59	4	2,572 50	10 85	703 13	2 97	2,275 63	13 82
.93	47	20	14,291 40	15 15½	2084 55	2 21	16,375 95	17 36½
.88	45	2	1,300 00	14 45	480 75	5 34	1,780 75	19 79
.93	53	15	10,699 75	14 02	4151 34	5 44	14,851 09	19 46
.91	49	8½	6,517 00	15 78	1233 57	2 98	7,750 57	18 76
.90	57	4	2,527 25	11 08	803 99	3 53	3,331 24	14 61
.93½	52	15	9,863 25	11 93	2091 39	2 53	11,954 64	14 46
.82	41	4	2,587 50	15 70	779 56	4 72	3,367 06	20 42
.92½	55	12½	8,499 65	12 44	1907 91	2 94	10,407 56	15 38
.87	46	13	8,531 00	16 25	1508 31	2 87	10,039 31	19 12
.91	47	199	$145,406 70	15 15½	$36,203 69	3 98½	$181,610 39	19 14
.86	25	32	4,695 90	5 45	754 50	88		6 33
..	..	2	3,000 00					

TABLE VII.

Showing the number and capacity of School-houses etc., and, approxi-

YEAR.	No. of school-houses owned by board.	No. rented.	Total No. of seats.	Whole No. of pupils registered.	Average No. belonging.	Average daily attendance.	Average No. of teachers.	RECEIPTS.		
								From rents.	From State and county school funds.	From city mill tax.
1850	6	3	1800	.....	....	....	31	$14,537 34	....	....
1851	7	3	2850	.....	2127	....	47	14,220 47	....	$18,432 11
1852	7	3	2876	.....	2625	....	52	14,154 40	....	26,344 70
1853	9	3	3755	.....	2968	....	60	14,060 66	....	25,263 90
1854	9	4	3800	.....	3681	....	67	13,353 53	$31,043 79	27,759 85
1855	11	4	3917	6,966	4105	....	74	15,114 87	11,583 47	28,481 27
1856	11	5	....	8,123	....	....	86	14,547 59	24,289 30	31,219 00
1857	12	7	....	.....	....	....	116	16,184 34	28,179 84	33,880 38
1858	13	10	6773	9,769	5814	5361	131	25,764 49	32,730 35	53,500 73
1859	23	3	9289	10,111	6253	5739	145	30,542 45	32,955 98	66,815 44
1860	22	2	9441	12,218	7576	6880	168	33,497 28	29,159 76	70,716 83
1861	22	2	9441	13,380	8716	7983	181	25,674 32	7,626 34	62,765 09
1862	21	1	8945	5,787	3654	3364	76	25,937 86	....	47,387 82
1863	..	..	8664	8,937	5688	5101	111	27,264 67	1,598 25	50,666 66
1864	21	..	8976	13,370	8229	7489	162	35,345 43	21,861 66	56,222 55
1865	22	2	9916	15,397	9871	8804	194	34,234 65	4,259 70	118,571 68
1866	25	5	9857	16,228	10,454	9597	236	43,788 71	5,463 79	163,923 28

TABLE VII—CONTINUED.

matively, the receipts and expenditures for each fiscal year since 1850.

RECEIPTS.			EXPENDITURES.				
From quit claim notes, interest and other sources.	From Tuition Fund and different sources.	Total receipts.	For teachers' salaries.	For new buildings and furniture.	For building lots and real estate.	Officers' and Janitors' salaries, fuel, rent, etc., improvements and general expenses.	Total expenses.
$ 6,026 02	....	$20,563 3(	$13,703 00	$ 1,500 00	$ 1,617 75	$ 3,742 61	$20,563 36
14,150 01	....	46,802 6(	17,575 00	14,221 56	6,534 70	4,390 07	46,802 69
7,857 11	....	47,356 21	20,000 00	8,748 28	10,600 00	8,007 93	47,356 21
3,670 99	....	43,992 58	23,565 85	11,059 82	243 20	9,926 71	43,995 58
14,932 38	....	87,088 55	28,466 17	23,756 10	17,337 50	17,528 68	87,088 55
32,060 63	....	87,239 24	34,819 12	32,618 25	18,001 87	18,001 87	87,239 24
27,980 04	....	98,036 93	42,765 25	18,986 16	21,820 70	21,820 70	98,035 93
42,438 27	....	126,282 83	57,020 33	26,654 50	24,374 57	24,374 57	126,282 83
48,224 69	....	160,220 26	67,742 21	33,343 04	22,211 55	28,211 54	160,220 26
37,660 67	....	167,974 54	83,074 96	25,870 05	29,670 87	29,670 87	167,974 54
29,359 49	....	162,733 36	92,141 35	31,908 80	13,824 21	24,859 00	162,733 36
6,058 61	....	102,124 36	68,390 63	5,587 00	7,969 86	20,176 87	102,124 36
10,046 30	$24,074 75	107,446 73	46,028 78	450 00	13,120 33	47,845 80	107,446 73
23,518 35	12,362 38	115,410 31	51,886 05	....	....	55,556 41	115,800 84
5,322 40	78,728 41	197,480 45	88,078 54	1,704 35	7,935 69	47,098 38	154,816 96
4,108 00	44,891 89	207,065 91	126,023 42	4,529 64	16,384 50	122,889 68	269,827 24
116,175 22	3,725 95	333,076 95	153,232 80	55,764 30	16,047 00	106,650 26	331,694 36

FIFTH BIENNIAL REPORT

OF THE

MISSOURI INSTITUTION FOR THE EDUCATION OF THE BLIND,

TO THE

TWENTY-FOURTH GENERAL ASSEMBLY.

BOARD OF TRUSTEES.

JAMES E. YEATMAN, *President.*
GEORGE PARTRIDGE, *Vice President.*
WARREN CURRIER, *Secretary.*
T. B. EDGAR, *Treasurer.*
S. POLLAK, M. D.
Rev. H. A. NELSON, D. D.
FELIX COSTE.

STANDING COMMITTEES.

ADMISSION AND DISCHARGE,

S. POLLAK, M. D.; Rev. H. A. NELSON, D. D.

INSTRUCTION,

FELIX COSTE, S. POLLAK, M. D.

WORKSHOP,

T. B. EDGAR, WARREN CURRIER.

FINANCE,

GEORGE PARTRIDGE, WARREN CURRIER.

OFFICERS OF THE INSTITUTION.

PRINCIPAL,

HENRI R. FOSTER.

ASSISTANT,

D. R. HAYNES.

ASSISTANT TEACHERS,

Mrs. E. HOUCKE, Miss ANNA ZATTMAN, Miss CHRISTINA RENTZ.

PROFESSOR OF MUSIC,

HENRY ROBYN.

ASSISTANTS,

D. S. WILKINSON,
FRED. NEUKOM,
JAMES CORNETT,
Miss JENNIE D. NEAL,
Miss ANNA CRUDIS,
Mrs. E. HOUCKE.

TYPE-SETTERS,

Miss CHRISTINA RENTZ, Miss JENNIE D. NEAL, Miss BELLE PAINTER.

MATRON,

Mrs. JULIA S. WILKINSON.

WORKSHOP,

ANDREW KEICHLE, *Foreman.*

GIRLS' WORKROOM,

(*In charge of the Matron.*)

ATTENDING PHYSICIAN,

S. POLLAK, M. D.

CONSULTING PHYSICIANS,

C. A. POPE, M. D.; J. B. ALLEYNE, M. D.

REPORT OF THE BOARD OF TRUSTEES.

To the Honorable General Assembly of the State of Missouri:

The charter of this institution makes it obligatory on the trustees to make a report to every biennial regular meeting of the General Assembly. In performing this duty they must first express their fervent gratitude to Almighty God for His continued protection of, and favor to, this institution. During the years of the calamitous civil war its doors were not closed nor its operations interrupted; and during the recently prevailing ravaging epidemic, cholera, when death held a carnival in our city, sparing neither age nor sex—when the rich and poor fell alike victims to this fell destroyer, it passed by the threshold of this institution without crossing it. This immunity from pending evil could not have been effected by human agency; it was manifestly the work of a merciful Providence.

The late President of the Board of Trustees, the Rev. Dr. T. M. Post, felt constrained to resign on account of enfeebled health and multitudinous other pressing and not less important engagements. This institution owes him many thanks for his invaluable services during his long connection with the board, and they are herewith respectfully tendered.

Mr. George D. Hall, a member, and Secretary of the board, withdrew from it on account of unavoidable frequent absence from the city and the urgent demands of his business on his time. The Rev. H. A. Nelson and the Hon. Felix Coste were appointed in their stead.

Also, the late Principal, Mr. Philatus Fales, saw fit to sever his connection with this institution and to accept a call to a new institution of learning, to a position more remunerative and more congenial to his taste. He has the thanks of the institution for services faithfully and successfully performed, and the best wishes of the board for his continued happiness.

Mr. H. R. Foster has been elected his successor. He is a man who has made teaching his profession, is a mild but firm disciplinarian, and has given evidence of superior administrative ability. He is ably seconded by a very competent corps of assistant teachers—both seeing and blind—and it is hoped that this institution will retain its reputation as being, though one of the youngest, yet one of the best and most practically successful institutions in the United States.

To the "Braille-type system of reading, writing, cyphering and music for the blind," of which mention has been made in former reports, are mainly due the great practical results this institution has attained, so as to place it in the front rank of any like institution in the land. Our pupils may boldly challenge those of other institutions to a match in spelling, reading and writing, both of language and music. The adaptation of the Braille system to the English language, and its successful introduction in this institution and perhaps in this country, is chiefly if not exclusively due to the indefatigable and intelligent efforts of the professor of music, Mr. Henry Robyn. He has recently visited several institutions of the blind, West and East, in the interest of the blind. He has given to their respective managers some practical and convincing demonstrations of the working of the Braille system, which it is hoped will not be seed cast on a barren soil. We refer particularly to the report of Mr. Robyn about his visit to the various institutions in the East and West.

It is much to be regretted that the older institutions of this country, especially East, are so slow, even reluctant, to adopt a system of types which has established its superiority both in Europe and America. In Iowa, Wisconsin, Kansas, Kentucky, Michigan and Ohio this system is being introduced. How long will the older institutions resist the popular and, it seems to us, just demand for the type which is getting to be the universal type for the blind in the old and new country? Why multiply the difficulties and cost of educating the blind, when experience has proven that, with the Braille system, the schooling of the blind can be wonderfully facilitated, and be made as thorough as that of seeing? Where is the school in the land where a pupil can print his own books, or his music? That which appears as being unnecessary, if not impossible with the seeing, can be daily witnessed in

this institution, as being done by the blind, by nearly each individual pupil with the Braille apparatus. Besides, with the simple and very cheap press and types invented by the professor of music, Mr. Henry Robyn, this institution can supply all the schools for the blind in the United States with reading matter and music, at half the cost it is held now for the seeing. The whole work of transcribing, type-setting and printing could and would be done by the blind, and thus be adding new means of livelihood to the otherwise limited number at the disposal of the blind.

In the Mechanical Department—workshop—broom making alone has been taught of late years, it being a trade easily acquired, and which can be carried on with small means. But the board has resolved to resume the manufacture of brushes, as being the next most remunerative, and of comparative easy acquisition. This will give four paying trades to the choice of the male pupils, viz: Broom and brush making, piano tuning, type-setting and printing in Braille; while the female pupils acquire, besides a practical knowledge of sewing, knitting, crocheting and bead work, the art of type-setting. To two of the female pupils this institution is indebted for the large and very valuable stock of music and some of the elementary school books.

The spirit of the age demands a Home for the Blind—that is, an establishment where the educated blind might find a place to carry on the trades, which he or she acquired at school, without being obliged to go out in search of work, or to dispose of the manufactured articles. The home should find work for the industrious blind, furnish shop rooms, tools and the raw materials, and undertake the sale of the manufactured ware free of charge. The home should furnish board and lodging to those only who are able to pay for it, but it would be more desirable if they should board elsewhere, and only come daily to the home, as the seeing mechanics to their workshop or factory. Such a home should be under the control of the trustees of the Institution for the Education of the Blind, but otherwise be entirely disconnected and independent of it. A home once properly organized and furnished should and could be self-sustaining. Such homes are connected with all the institutions for the blind, East and in Europe. They are indispensable charities for the blind, in order to make the knowledge acquired at the workshop of some good and practical effect. In view of the known difficult condition of the finances of the State, we refrain from asking an appropriation at present for this important object, but trust that the year is not distant in which the Legislature will be able and disposed to make such appropriation.

The building of the institution has become inadequate for the accommodation and proper schooling of the present number of pupils. For the efficient classification of the scholars more rooms are required. Especially is this the case in the musical department; the sounds of the pianos and other musical instruments are being heard all over the house for twelve hours every day, materially annoying those engaged in mental studies, and disturbing those requiring repose. There is not an infirmary room for either males or females, the want of which has not been much felt, on account of the immunity from serious sickness this institution enjoyed until the last winter, when several cases of typhoid fever and pneumonia admonished the board of the necessity of making immediate provisions for an infirmary. In the present building it is impossible without disarranging the school and the whole order of the house. If, in the providence of God, disease should visit this institution, both the sick and well would fare badly. The school would have to be much disturbed, perhaps suspended, or the wants of the sick would have to remain unattended to. Heaven forbid that such an alternative should have to be resorted to. With the view of remedying the evil, the board resolved to add a wing to the present building, to correspond with it in style; the wing to be forty-eight by twenty-five feet, to have three stories and a basement. The latter to contain the laterine, lavatory and baths for boys; the first floor to contain two class rooms; the second and third stories, two chambers each; each floor to connect with the floor of the main building by a covered way, as per accompanying plan and specifications. The contract price would be about $20,000, for which we earnestly petition the honorable General Assembly to make provision.

In the report of 1864 it was fully demonstrated that this institution has been carried on more economically than any other in the United States but one, in Ohio. Yet, owing to the

enormous increase of the cost of living, the sum of $15,000 a year will be required—the same amount as in the last two years—to defray the expenses, provided the number of pupils of last year is not much increased.

The census of 1860 shows that there are four hundred and forty-eight blind persons in the State Assuming that one-half are susceptible of receiving a good English education, it would not be surprising if many more would avail themselves of this noble charity than hitherto. Quiet and order now prevail in the State; the means of intercommunication and traveling are more abundant, but, alas! the poor blind remains ignorant of the existence of this institution, or is incapable to comprehend or to appreciate the benefits it would bestow on him. It would be desirable that a law be enacted requiring county and municipal officers to inquire for the existence and into the condition of every blind person in their immediate district or vicinity, and if found of suitable age, mental and moral capacity, to have them forwarded to this institution.

The treasurer's report exhibits an expenditure for the last two years ending November 1, 1866, of $30,234 10, leaving a balance on hand at that date of $10,800 87. The expenses to the first of April, 1867, the beginning of our financial year, are estimated at $8,500 00, which will leave in the treasury $1,800 00 to begin the financial year, commencing April 1, 1867.

The Principal's report will furnish the names of officers and employes and their respective salaries; the names of pupils, when admitted, when discharged and their ultimate destiny, as far as known. He will exhibit more minutely the condition of the school, which to the trustees, to the committee of your honorable body, and to the large number of visitors from home and abroad, has proven entirely satisfactory.

Appended will also be found a list of the pieces of music printed in Braille, and the price affixed at which they can be furnished, which will demonstrate the remarkable fact that the prices are fifty percent. less than the same sheet music for seeing.

A diagram of the Braille apparatus, his letters, figures and punctuation accompanies this, and also a lithographic sketch of the types and printing press now in operation in this institution.

Respectfully submitted,

JAMES E. YEATMAN,
GEORGE PARTRIDGE,
S. POLLAK,
WARREN CURRIER,
T. B. EDGAR,
HENRY A. NELSON,
FELIX COSTE,
Trustees.

St. Louis, November 13, 1866.

REPORT OF THE PRINCIPAL.

To the Board of Trustees:

GENTLEMEN: In accordance with the by-laws of the institution I make to you the following report, compiled mainly from those which have been submitted to you each month by my worthy predecessor, Professor Philatus Fales, who had charge of the institution the larger portion of the time which this embraces.

The school register furnishes the following statistics:

	Male.	Females.	Total.
Number present on register, November 1, 1864	27	23	50
Number admitted from November 1, 1864, to November 1, 1866	25	20	45
Number discharged from November 1, 1864, to November 1, 1866	21	17	38
Number present, November 1, 1866	31	26	57

Of the thirty-eight discharged, five have removed to other States; four, by successful surgical operation, had their vision restored; two were removed for incapacity, two were expelled; twelve left to pursue their trade; one was insane, and the others had received the full course of instruction which the institution affords. Nearly all these are now able to provide for their own maintenance, and will gladly do so, if only they are so situated as to be able to use their acquirements. Unfortunately, quite a large number of them have neither parents nor friends who can or will assist them in procuring situations, fitting up workshops and making other preparations which are essential to their success. Yet many who have here learned their trade are now located in different portions of the State, and are excellent citizens, because honest and industrious, while some few did work well for a time, but became discouraged and have not done so well as they might under other circumstances. It is to be hoped that ere long the State will provide a home for such as are without friends, that on their discharge from the institution they will not feel themselves turned out, but will be furnished with workroom, and receive pay for their labor, being required to board and clothe themselves from the proceeds. A home can and would be self-sustaining, after the necessary buildings are provided. It should be separate from the present school, but might be under the same management.

By the register, it will be seen that the whole number of pupils under instruction during the last two years was ninety-five, a much larger number than during any like period. Such an increase of pupils affords most conclusive evidence of the prosperity of the institution, and proves, moreover, that the blind themselves are beginning to have a better appreciation of the opportunities here afforded them of becoming useful, respectable, independent members of society, instead of being dependent upon the cold charities of the world for the merest necessities of their existence. But there are many more who, doubtless, would avail themselves of these privileges if they knew that the State had made such ample provision for them to acquire an education, and to prepare themselves to obtain a livelihood by their own personal industry. Since the State is so liberal in its provisions for the wants and necessities of its unfortunate citizens, it should be the duty of all State, county and town officers, of all clergymen, and of the friends of progress generally, to make known the object and design of this institutio , and to influence all proper and eligible subjects to enter it. Some have erroneously supposed this to be an asylum for the sick, the aged and the imbecile blind, and many such are applying for admission. We can only turn them away; an act which many times seems cruel and heartless. The charter granted to the corporators declares it to be "the Missouri Institution for the Education of the Blind," and as such it should be known—a school in the fullest extent of the term, where such as are deprived of their sight can acquire, by personal application, a good education in music or literature, and can also learn one or more trades.

SCHOOL.

The studies have been the same as in former years, viz: Arithmetic, algebra, geometry, philosophy, physiology, physical and descriptive geography, English grammar, rhetoric, etymology, dictionary and the usual classes in reading, spelling and writing. Judging from the public examination which was held at the close of the last session, and from the condition of the school when it came under my charge, I must say that their progress and acquirements were highly satisfactory, evidencing excellent studiousness and application on the part of the pupils, and well directed energy and perseverance on the part of the Principal and his assistants. The literary and musical exercises of the examination were of the most interesting character. The answers were not mere repetitions, but showed that the pupils were led to think for themselves and frame their own ideas. This is the result of the superior advantages which are here afforded the pupils by the use of the Braille system. They are enabled by this to print their lessons day by day, and prepare themselves for the recitation before the class is called, thus rendering their exercises intellectual rather than mechanical.

PRINTING.

Mention was made in the last report that a press and types for printing in Braille had been procured, and that the institution was now ready for printing its own books. Two of the pupils were assigned to this work, and very soon learned to set type from "copy" printed first on the slate, or from dictation. They were employed in the press room only the hours which were assigned to work. The result of their labor is a Common School Geography, in two volumes; a Physical Geography; a musical collection, entitled Our Musical Leaves; a collection of hymns for chapel use, besides a large amount of matter, both literary and musical, for daily use in the class room. This has been accomplished with an expense to the State of only two hundred dollars, for press, types and other necessary apparatus. We have in press a series of musical works, in six volumes, prepared expressly for self-instruction for the blind, by Professor Robyn; said series comprising the following works:

Abridged Musical Dictionary of Italian, English, French and German words.

The Rudiments of Music generally.

Thorough Bass Made Easy; a treatise on the theory of musical compositions.

Creed and Practical Philosophy of an Artist; advices and rules for every lover of music and practical performer of this art.

Practical Piano Forte School.

The first two are nearly ready for the binder. We are also preparing a Speller and Definer, a Common School Arithmetic and a Child's First Book. While the press has been doing this, the pupils, with style and a slate, have printed a Dictionary, Lynd's Etymology, an Arithmetic and a Grammar. The present term we have a class of eight printing Loomis' Natural Philosophy; five, printing Davies' Legendre Geometry, and a class in the History of England, who are copying the more important events, dates, etc. The Braille reading class numbers seventeen, fourteen being under twelve years of age. Twelve learned their letters during the first ten lessons, and seven could read readily in words of two and three letters. One little girl of seven years, at the sixth lesson, could tell any letter by having her finger placed upon it as readily as any seeing child would by pointing to it. The facility with which this type is learned, and the means of printing it so rapidly by hand, place it very far in advance of all other systems which are now in use for educating the blind, and it is to be hoped that very soon all educators of this unfortunate class will adopt the "System Braille."

MUSIC.

This department is still under the charge of Professor H. Robyn. For a full and complete report of this department I refer you to a communication made by him to the Committee of Instruction, and I would respectfully suggest that you receive that and submit it in full as a part of the forthcoming report to the General Assembly.

WORKSHOP.

The older male pupils have been employed, as heretofore, in the manufacture of brooms. Twelve have been discharged during the last two years to follow this trade. The blind can readily acquire several other trades, but this one experience has proved the most advantageous, since, when leaving here, they are generally compelled to depend almost wholly upon themselves and must manufacture those articles which they are able to fit for the market without the aid of the seeing.

On leaving the shop they are furnished with a machine and press and other necessary tools. These they seldom feel able to pay for, and in the account annexed I have given credit for them as loaned.

Workshop in account with Institution.

To value of raw material, Nov. 1, 1866	$115 00	By 443¾ doz. brooms	$1839 35
To material bought for two years to Nov. 1, 1866	1816 32	By raw material sold	122 75
To twenty-five broom machines	375 00	By thirteen broom machines	222 50
To eight broom presses	120 00	By eight broom machines loaned	156 00
To balance	312 13	By eight presses loaned	120 00
		By four machines on hand	68 00
		By raw material on hand Nov. 1, 1866	209 85
	$2738 45		$2738 45
To salaries	$720 00	By balance	$312 13

Comparing the raw material and the sale of manufactures it shows a profit of $312 13, but including the salary of the foreman there is a deficit of $407 87, being the cost of instruction in the mechanical department.

ARTICLES MADE IN THE GIRLS' WORKROOM.

Aprons for shop	12
Aprons for small girls	12
Comfort covers	41
Dress skirts	199
Drawers and chemise	105
Handkerchiefs and napkins	125
Night dresses	88
Pillow slips	181
Quilt (pieced)	1
Socks and stockings (knit)	48
Shirts (hemmed)	12
Skirts (balmoral)	15
Skirts (flannel)	9
Skirts (white)	50
Sheets	106
Towels (rollers)	128
Towels (hand)	140
Tidies (crochetted)	10
Edging, yards (crochetted)	10
Tatting, yards	500
Beadwork, in articles of different and various kinds	1000

The above list shows that even a blind girl can accomplish much with the needle. The hours for work are from two to five P. M., but nearly every one of the girls are absent from the workroom a portion of that time, either taking music lessons or practicing.

They also take care of their own rooms, sweeping them and making their beds, and wash all the table dishes for the house. By so doing they are not only learning to do general housework, but also save no small item of expense which would otherwise be necessary.

OUR PRESENT CONDITION AND FUTURE PROSPECTS.

Owing to the prevalence of the cholera in the city the pupils did not return so promptly as usual from their summer vacation, and not till the fourth week of the session were we able to complete the organization of the several classes. Eleven new pupils have been admitted this term, and there are six more applications now pending. With this increase of pupils the necessity for more room is plainly apparent. Our present accommodations are more than crowded. Class rooms, music rooms, sleeping apartments, and especially a sick room, are needed. Fortunately, by the blessing of God, there has been but little need for such a room till during the last year, when there have been several severe cases of sickness, and we were compelled to suspend many of our duties. It is indispensably necessary that the proposed addition to the present building be made as quickly as possible. The cholera did not wholly pass us by, but none of the inmates of the institution fell victims to this destroyer. The attending physician has been constant and unremitting in his care, and the general good health of the pupils is largely due, under the blessing of God, to his watchfulness, which has enabled him to foresee and ward off approaching disease.

In behalf of the officers and pupils I offer our heartfelt thanks to the Philharmonic Society for free *entree* to all their concerts, to the different musical troupes who have accorded us like favors, to Mrs. L. B. Yates and Miss E. M. Mack for reading on Sabbath and Wednesday afternoons, and to various Christian friends who have conducted religious exercises in the chapel on the Sabbath. Nor has the Missouri Democrat failed to make its daily visits, for which the proprietors will accept our thanks; and we hope the proprietors of other papers will deem this remuneration sufficient and favor us with their publications.

Last, but not least, we are under great obligations to the several railroads for the many favors shown to us in granting free passes to the pupils to go home, and also to return after vacation.

Respectfully submitted,

H. R. FOSTER, *Principal.*

St. Louis, November 13, 1866.

COMMITTEE ON INSTRUCTION.

A short space of six years will show what progress has been made in this country in regard to the Braille system, which is no doubt one of the most useful studies for the blind. Several opinions of blind teachers and pupils were published some time ago, which show how favorably this class of students think of the same; to my knowledge I have never instructed one who was not fully satisfied with the result of his labor.

One of your committee (Dr. S. Pollak), when traveling in Europe and visiting the principal institutions for the education of the blind, wrote to me in a letter dated Paris, January 12, 1860: "I would like to engage a good music teacher from this institution (the institution at Paris) to teach in America the System Braille—not to the pupils, but to the teachers. I wrote to Boston and Philadelphia in regard to the same, and I am sure our trustees will be satisfied with such arrangement; but in case they should object to the expenses I am willing to pay the share which would fall on our institution myself." After going more into detail and speaking in general of the practicability of the whole system, he says: "Without Braille, we ought not and cannot get along any longer."

In March, the same year, I commenced the study with two pupils. The progress was most favorable, so that, at the close of the session in June, I had nine pupils who were able to read and print the language, cyphering and music. Since then we have been going on

steadily in our institution, where we adopted it in all branches of studies. After my first report, in July, 1862, the principal of the institution at Janesville, Wisconsin, requested me to send him the characters for music, etc.

To my knowledge, Braille has been used there for language but not for music. Also, in 1862, by request, all characters for language and music were sent to Philadelphia. According to their last report they have a writing class in Braille; and, in 1865, two pupils in that institution could read music in said characters.

In May, 1863, the institution in Iowa ordered twenty-five Braille slates. Instruction was given to them by me by letters, and also verbally to one of their trustees who was here on a visit.

In November, 1865, the old New York institution ordered a slate and reading matter; and, no doubt, after a conversation which I had with the principal in August last, they will soon introduce it.

The New York institution, at present in Batavia (but to be located at Binghampt n), has ordered a fount of type and some slates, and will no doubt commence printing books in that type.

The institution in Indianapolis, Indiana, has also ordered, in September, Braille slates and a fount of types, which have been sent them, with books and music pieces in these types.

The institution at Columbus, Ohio, whose principal visited our institution in May last, took a slate with him and the necessary instruction. Whether or no they have commenced teaching it I do not know.

In June we also had the pleasure of having Dr. Rhoads, the principal of the Jacksonville institution, for several days in our school. We had the pleasure to hear from him of his entire satisfaction as to the practicability of the system, so that he expressed the wish to send us some of his teachers to have them instructed in order to introduce the system in his school; he also ordered slates and a full supply of types for a printing office.

In May Mr. B. M. Patten, principal of the Louisville institution and trustee of the National Printing Office for the Blind, located in Kentucky, visited our institution, particularly about the printing of Braille type. He requested me to teach some of his pupils in his institution. I went there on the 25th June, and spent two weeks with him, during which time I taught six of his pupils. I commenced at an unfavorable time, so near the close of the session, when all pupils are exhausted by hard studies, yet the result achieved in so short a time was most astonishing.

In the first day the alphabet, reading and spelling was learned; in the second day, the interpunctuations, and the printing of the language; the third day, cyphering and examples in arithmetic (in all the four rules, and also fractions); the fourth day was spent in practicing reading, language and cyphering; the fifth day I commenced the musical characters with them; all notes, different octaves, rests and accidentals were learned; the sixth day, all other characters used in music were taken, as chords, intervals, etc.; the seventh day was spent in reading music, cyphering and language; the eighth day, all characters in algebra and examples in that study were taken, and the ninth day was spent in reviewing all different characters, also examples in the different studies were taken; and to my greatest astonishment, I must confess that my pupils knew theoretically every character as well as I did myself, and nothing remained for them to do than to make practical use of the same, which was not neglected, as I have received several letters in Braille from them. Now, where is a system which can be acquired in so short a time? If any one, and particularly those who think this system so very complicated, will present a simpler one, I will adopt it immediately and drop the Braille system. It should be well understood that the Braille system is not the thorough education of the blind, but that it only facilitates the teacher and the pupil to impart and receive instruction easier than by any other system. However, two things are necessary to see such results as I witnessed in Kentucky. First, a teacher who is able to teach in a practical way, and, second, pupils who have the right spirit and determination to learn. Such I found in those pupils in that institution. I may say that during my more than twenty-five years' instruction, I never found a whole class so

attentive, intelligent, patient and determined to learn. During all the time, I never noticed one of them wayward in their mind, or for an instant indifferent to their studies. It was plain to see what discipline and good behavior the instructors had brought in the pupils, and also easy to find out how devoted the teachers were to their profession and their pupils. The more I see of the capability of the blind, the more I am convinced that they are able to do in all studies equally as well as the seeing; their teachers only require to be thinking and experienced men. It is often overlooked by those who have the management of such institutions, that persons without qualifications or capability are placed in situations for which they are not capable; that such teachers are not able to teach the blind things which they do not know themselves, is easy to understand. My opinion (which is founded on many years' experience), is, that only those have a right to participate in the instruction and management of such instructions who bear in mind the great responsibility that rests on them, and consequently feel interested in the performance of their duties, sparing no exertions to overcome all difficulties connected with their office.

In October, the principal, Mr. Patten, ordered a large fount of types (100 lbs.), which were cast and sent to him.

The difficulty which we first had to overcome was the invention of a duplicating machine. After several unsuccessful inventions, the division of the type came in my mind. In December, 1863, the trustees of our institutions appointed a committee, consisting of Dr. Pollak (member of the committee on instruction), Mr. Fales (Principal), and myself, to consult in regard to printing Braille. It would have been difficult, almost impossible, to teach the blind type-setting where so many types are required. After consultations, three different kinds were produced; but the five-type system was adopted, and has proven to be all that was expected.

It is not possible that a real friend of the blind, after seeing the superiority of this system, could hesitate an instant in adopting it.

What is the use in spending weeks after weeks, and months after months, in teaching and troubling a blind pupil with the old and impractical letters, when the dotted system is so much easier and so quickly learned? Old teachers will say, "the old system has so long given satisfaction, and we are used to it, and do not care about learning something new ourselves."

They, however, will find that the wheel of progress has turned so many old things from the track, and brought forth, even against the will of many persons, new ones, which have proven in the end to be much better; so it will be with this. I may add that, if the blind were consulted about this matter, before ten years are past from the beginning of my introducing the same here, it would be the uniform type for them. "The seeing, often kindly disposed, are as a general thing naturally incompetent to meet, scientifically, the wants of the blind." Of this, the following striking fact is offered in evidence: The committee of one of the most important institutions in England had recently discovered that the type of the embossed Roman capitals is too small for the touch of blind adults; yet this type was introduced under the auspices of the inventor of the system, and during the last quarter of a century strenuously supported by the committee alluded to. Had the blind themselves been consulted in the outset, such a grave error could scarcely have been committed.

For a trifle every institution could have its printing press, and more would be printed in one year than there is now printed in ten years in the only two establishments of the kind in the United States.

Respectfully submitted,

St. Louis, November 3, 1866. HENRY ROBYN.

APPENDIX A.

Besides the following named compositions, a great many other pieces, such as Beethoven's waltzes, Czerny's one hundred progressive lessons, Bertini's and Duvernoy's studies, etc., are played by the younger pupils. All pieces marked * are written in Braille, by hand.

List of Compositions which were studied by the Pupils—most of them were Performed at the Monthly Concerts.

	(*A.*) *Choruses—For Sopranos, Altos, Tenors and Basses.*	
1	Give ear, O Lord	Abt.
2	From "Masaniello"—Away, the morning freshly breaking	Auber.
3	"Gipsey's Warning"—Joy! freedom to-day	Benedict.
4	"La fille du Regiment"—Now the roll of the lively drum	Donizetti.
5	"Martyrs"—Mighty Jehovah	Donizetti.
6	"Lucrezia Borgia"—Joy is over the waters dancing	Donizetti.
7	"La fille du Regiment"—Morning is breaking	Donizetti.
8	"L' Elisire d'amore"—When the summer rain is over	Donizetti.
9	"Bohemian Girl"—Come with the Gipsey bride	Balfe.
10	"La Somnambula"—Phantom chorus	Bellini.
11	"William Tell"—How bright and fair	Rossini.
12	"Semeramide"—Hail to thee, Liberty	Rossini.
13	"L'Italiana in Algri"—When the morning sweetly breaking	Rossini.
14	"Mose in Egitto"—Night's shade no longer	Rossini.
15	"Mose in Egitto"—Green be your fame forever	Rossini.
16	"I Lombardi"—Pilgrim chorus	Verdi.
17	"Ernani"—O, hail us, ye free	Verdi.
	(*B.*) *Compositions with Organ Accompaniment.*	
18	Mass in B flat, for four parts, Kyrie, Gloria, Agnus Dei and Dona nobis	De Monti.
19	Mass in F, for four parts	Ests.
20	Mass in C, for three parts	Fuchs.
21	Quam dilecta tabernacula tua	Lambillotte.
22	Twelfth Mass, Sanctus and Benedictus	Mozart.
23	The prayer from Moses in Egypt	Rossini.
24	Inflamatus from the Stabat Mater	Rossini.
	(Also about fifty of the most popular hymns commonly used in Protestant churches.)	
	(*C.*) *Duetts sung by the Class for Sopranos and Altos, with Piano Accompaniment.*	
25	Home; guardian mother	Abt.
26	Come o'er the moonlit sea	Auber.
27	Shells of Ocean	Cherry.
28	The herd-bells	Gumbert.
29	I know a bank	Horn.
30	Go thou and dream	Horn.
31	Music and her sister song	Glover.
32	Hark! I hear the organ's peal	Glover.
33	I'll pray for thee	Donizetti.
34	O haste, crimson morning	Donizetti.
35	Barcarola	Kuecken.
36	Ah! could I teach the nightingale	Keller.
37	I would that my love	Mendelssohn.
38	The passage bird's farewell	Mendelssohn.
39	Greeting	Mendelssohn.
40	Autumn song	Mendelssohn.
41	O, wert thou in the cold blast	Mendelssohn.
42	The May bells and the flowers	Mendelssohn.

LIST OF COMPOSITIONS — *Continued.*

	Duettos Sung by Class, etc.—Continued	
43	Evening song	Mendelssohn.
44	Where the warbling waters flow	Richard.
45	Evening song to the Virgin	
46	O, lov'd Italia	Verdi.
47	Flow on, thou shining river	Stevenson.
	(*D.*) *Female Choruses, with Orchestra Accompaniment.*	
* 48	List to the convent bells	Blockley.
* 49	The moon is beaming o'er the lake	Blockley.
* 50	Make me no gaudy chaplet	Donizetti.
* 51	Beautiful dreamer	Foster.
* 52	Beautiful Wales	Thomas.
* 53	O, sweet be thy repose	Thomas.
54	Weeping, sad and lonely	
* 55	My home	Doppler.
* 56	Still in my dreams	Hall.
* 57	Happy be thy dreams	Thomas.
* 58	My happy home far o'er the sea	Daly.
* 59	Alpine horn	Proch.
	(*E.*) *Duettos for one Soprano and Alto voice.*	
60	Hear me, Norma	Bellini.
61	There's a sigh in the heart	Fricker.
62	The murmuring sea	Glover.
63	Gently sighs the breeze	Glover.
64	What are the wild waves saying?	Glover.
65	Two merry girls	Glover.
66	When all the world is hushed in sleep	Gumbert.
67	Gondola duet: O, come to me	Kuecken.
68	Nay, bid me not resign, love	Mozart.
69	When night comes o'er the plain	Nelson.
70	Bear me, boatlet	Neukomm.
71	Dark day of horror	Rossini.
72	Back to our mountains	Verdi.
73	Holy Mother, guide his footsteps	Wallace.
	(*F.*) *Solos for Soprano or Alto.*	
* 74	The herdsman's mountain home	Abt.
* 75	O, ye tears	Abt.
76	In the eye there lies the heart	Abt.
* 77	Bleib bei mir	Abt.
* 78	Il Bacio	Arditi.
* 79	De conte (Fare thee well)	Bellini.
* 80	Qual cor tradisti (Ah! cans't thou leave me?)	Bellini.
* 81	Where are now the hopes I cherish'd	Bellini.
* 82	Let no thought of care oppress thee	Bellini.
* 83	Deh! non volerli vittime (Oh! curse me)	Bellini.
* 84	Casta diva (Chaste goddess)	Bellini.
* 85	Ungeduld	Curschmann.
* 86	Ask me not why	Donizetti.
* 87	Martha, a return love	Flutow.
88	Weit in der Ferne	Fesca.
* 89	Ye merry birds	Gumbert.
* 90	Sad is my heart with care	Gumbert.
* 91	My own dear native home	Gumbert.
* 92	Remembrance	Hoffman.
93	Dreams	Hodges.
* 94	We met by chance	Kuecken.
* 95	(Volkslied) Gretelein	Kuecken.
* 96	O, waer' ich doch des Mondeslicht	Kuecken.
* 97	Die Thraene	Kuecken.
98	s' Mailuefterl	Kreipl.

LIST OF COMPOSITIONS—*Continued.*

	Solos for Soprano or Alto—Continued.	
*99	The song of home	Maeder.
*100	Robert! toi qui l'aime	Meyerbeer.
*101	Nights of music	Robyn.
*102	What is life?	Robyn.
*103	In thee, I fondly hoped to clasp	Robyn.
*104	Bright be the place of thy soul!	Robyn.
*105	The rose	Robyn.
*106	Farewell! if ever fondest prayer	Robyn.
*107	I would I were a careless child	Robyn.
*108	Why should I blush?	Robyn.
109	Thou art so near and yet so far	Reichardt.
*110	Mignon's song	Spohr.
111	Die schoensten Augen	Stigelli.
*112	La Serenade	Schubert.
*113	Ave Maria	Schubert.
114	Ah! I have sigh'd to rest me	Verdi.
*115	Und ob die Wolk sich verhuelle	Weber.
116	Wie nahte mir der Schlummar	Weber.
117	Why do I weep for thee?	Wallace.
119	Cavatina from Masaniello	Auber.
120	In tears I pine for thee	Verdi.
	(G) Piano Compositions.	
*121	Dozia Mazurka	Ascher.
122	La Fiammina Mazurka	Ascher.
*123	Gouttes d'eau	Ascher.
124	Danse espagnole	Ascher.
125	Fete des Gondoliers	Burgmueller.
*126	Muzurka	Berge.
*127	Silvery Shower—Premole Estude	Baumbach.
128	Le Carnival de Venice—Fantasie elegante	Cramer.
*129	The last hope	Gottschalk.
*130	Grand March	Gunoud.
131	Les boards du Rhin	Hunten.
132	Remember me	Held.
*133	Bluett	Heller.
*134	Andantino	Heller.
*135	Spring morning	Heller.
*136	Le chant du Bivouac—march	Retterer.
*137	Flick et Flock—galop	Retterer.
*138	Gaetano Mazurka	Retterer.
*139	L'Argentine Fantasie Mazurka	Retterer.
*140	La harp Æoleon	Krueger.
*141	March—Bohemian	Kuhe.
142	Les eloches du monastere	Lefebure-Wely.
*143	Consolation	Mendelssohn.
*144	Confidence	Mendelssohn.
*145	The Wedding March	Mendelssohn.
146	Return of Spring—polka	Mœlling.
147	La Pluie de perles	Osborne.
148	Bridal Song	Oesten.
*149	German Singer March	Rasche.
150	Le Tremolo	Rosellen.
*151	La Gracieuse Polka	Robyn.
*152	Aglae Valse Brillante	Robyn.
153	Pensees Melancolique	Robyn.
154	Eliza Waltz	Robyn.
*155	Venzano Valse	Robyn.
*156	Etude Melodique, No. 1	Robyn.
*157	Etude Melodique, No. 2	Robyn.
*158	Etude Melodique, No. 3	Robyn.
159	Air Varie	Robyn.
160	Fantasie	Robyn.
*161	Belles of Missouri—quadrilles	Robyn.

LIST OF COMPOSITIONS—*Continued.*

	Piano Compositions—Continued.	
*162	Alpine Rose Rondo	Robyn.
163	Etude Mazurka	Talexy.
*164	Marche du sacre (Prophet)	Voss.
165	Marche celebre du Tannhauser	Wagner.
166	Trab, Trab, with var.	Wallace.
*167	Polka Brillante	Wallace.
168	Polka de Concert	Wallace.
*169	Lavine Polka	Wollenhaupt.
*170	La Gazelle Polka	Wollenhaupt.
171	Le Styrienne Valse	Wollenhaupt.
	(*H.*) *Violin Compositions with Piano Accompaniment.*	
*172	Bertoni—La Verginella	De Beroit.
*173	Donizetti—Non giova il sospirar	De Beroit.
*174	Blangini—Vanne al mio bene	De Beroit.
*175	Donizetti—Al dolie Guidami	De Beroit.
*176	Winter—A torto ti lagni	De Beroit.
*177	Mozart—Quel suono	De Beroit.
*178	Op. 89—Air Varie de Pacini	Danola.
*179	Op. 89—Air Varie Rossini	Danola.
*180	Op. 89—Air Varie de Bellini	Danola.
*181	Op. 89—Air Varie de Donizetti	Danola.
*182	Op. 89—Air Varie Weigl	Danola.
*183	Op. 89—Air Varie Mercadante	Danola.
*184	Op. 30—Fantasie, La fille du regiment	Singelie.
*185	Op. 40—Fantasie, Les Puritans	Singelie.
186	Op. 68—Fantasie, Stradella	Singelie.
*187	Op. 49—No. 2	Iansa.
*188	Op. 49—No. 3	Iansa.
*189	Op. 117—Perlen-Walzer	Labitzky.
*190	Op. 146—Fruehlingsgruesse	Labitzky.
*191	Op. 158—Hoffnungs-Strahlen	Lanner.
*192	Op. 10—Air Varie	Rode.
193	Op. 11—Grande scene from Lucie	Nauman.
194	Var. pour violon avec, piano accompaniment	Chas. Eberwein.
	(*I.*) *Flute Solos.*	
195	Op. 30—Var. Brillante from Preciosa	Faerstenau.
196	Op. 80—Divertisement, from La Favorite	Briccialdi.
197	Grande Polonaise	Weber.
198	Op. 105—Var. Polonaise, the last rose of summer	Kuhlan.
199	Op. 133—La Serenade	Kummer.
200	Op. 20—Var. sur un air Tyrolien	Bœhm.
201	Op. 22—Var. sur un air Allemand	Bœhm.
202	Var. sur un air Englaise	Dipple.
203	Var. God save the King	Drouet.
204	Op. 124—Var. Di tanti palpiti	Drouet.
205	Op. 73—Caprice	Miguel.
206	Fantasie on Le Desir Beethoven	Kummer.
207	Grand Fantasie on Witches' Dance	Bucher.
	(*K.*) *Compositions for the Band.*	
208	Divertisement from the Daughter of the Regiment	Donizetti.
209	Divertisement from Lucia di Lammermoor	Donizetti.
*210	Elfin Waltzes	Labitzky.
*211	Carnival of Venice	Paganini.
*212	Peri Waltzes	D'Albert.
*213	Divertisement from Ernani	Verdi.
*214	Volkslied, Rondo, Caprice	
*215	Volkslied, Loreley, Caprice	
216	Coquette Polka	
217	Fleur de Boheme Polka	

LIST OF COMPOSITIONS—*Continued.*

	Compositions for the Band—Continued.	
218	Mountain Bell Waltzes	Gungl.
219	Sounds from Home	Gungl.
220	Belles of Missouri Quadrilles	Robyn.

Of the above named compositions one hundred and one are written in Braille type.

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The first price shows the cost of the printed music for seeing; the second, the price in Braille.

Name of Music.	Price of Common Music.	Braille.
A collection of 24 popular pieces	$1 50	$0 75
The Gipsey Schottish	25	10
Lindell Hotel Schottish, A. Wauldauer	30	10
Madame Sontag's Waltz, Herz	15	10
Il Bacio Waltz, Arditi	20	10
Musidora Polka Mazourka, Talexy	35	20
Bluett Rondo, Heller	35	20
Spring Morning, Heller	20	10
Confidence, Mendelssohn	30	20
The Fair Stranger, Chs. Kinkel	40	20
Whisperings of Love, do	40	20
Love's Response, do	40	20
Charming Waltz, do	40	20
Pearls of Dew, do	40	20
Johnny-jump-up, do	40	20
Celebrated Grand Waltz, Beethoven	20	10
Gertrude's Dream, do	20	10
Axalia Waltz, do	20	10
Sentimental, or Rose, do	20	10
Dream Waltz, do	20	10
Study, No. 1, Duvernoy	12½	10
Study, No. 2, do	12½	10
Study, No. 3, do	12½	10
Study, No. 4, do	12½	10
Study, No. 5, do	12½	10
Sonate, No. 1, Op. 55, Kuhlau	40	30
Last Waltzes of a Madman, Beyer	35	20
Loves of the Angels, Pacher	50	20
Elfin Waltz Rondo, No. 1, Krug	30	20
Carnival of Venice, Rondo, No. 2, Krug	30	20
Alma Song, Rondo, No. 3, Krug	30	20
Loreley, Rondo, No. 5, Krug	30	20
Danish Air, Rondo, No. 5, Krug	30	20
How can I leave three, Rondo, No. 6, Krug	30	20
Concone's Vocal Exercises, Book No. 1, containing 25 lessons		75
Characters used in piano and vocal music		5
Twelve major scales for piano		25
Twelve minor (melodic) for the piano		25
Twelve minor (harmonic) for the piano		25

IN PRESS, AND WILL SOON BE FINISHED.

Title of Publication.	Price
Musical Dictionary, H. Robyn	$1 50
Practical Piano Forte School, H. Robyn	1 50
The Rudiments of Music, H. Robyn	1 50
Theory of Musical Composition, H. Roybn	1 50
Creed and Practical Philosophy of an Artist, H. Robyn	1 00
Thorough Description of the Braille System, H. Roybn	1 00

The last six works were expresely prepared for the use of the blind.

REPORT OF THE TREASURER.

Treasurer in account with Missouri Institution for the Education of the Blind, from Oct. 31, 1864, to Oct. 31, 1866.

1864.			1866.		
Oct. 31	To cash on hand	$10,223 22	Oct. 31	By salaries, books, musical instruments, etc.	$ 8829 85
1865.				By manufacturing account—broom presses, broom	
Jan. 12	To cash received from repairs account	925 47		corn, and other necessary material	2311 32
March 24 ...	To appropriation from St. Louis County Court for			By maintenance account	15,287 31
	clothing	450 00		By clothing account	2291 99
June 5	To annual State appropriation	15,000 00		By special account—repairs, furniture, and in-	
1866.				surance	1513 63
April 25	To appropriation from St. Louis County Court for			By funds appropriated to Building Committee	5000 00
	clothing	700 00		By balance on hand	10,800 87
28	To interest on current deposits	546 28			
May 24	To annual State appropriation	15,000 00			$46,034 97
Oct. 16	To interest on current deposits	85 90			
31	To income from manufacturing department for two			The undersigned have examined the above account and compared the same with the vouchers of expenditures, and believe the same to be correct.	
	years	2185 80			
	To clothing and tuition account	624 45			
	To sundry sales	193 85		W. H. MAURICE, } Committee.	
	Contingent fund returned by P. Fales	100 00		S. A. RANLETT, }	
		$46,034 97		ST. LOUIS, Dec. 18, 1866.	

APPENDIX B.

Names.	County.	Date of Admission	Date of Discharge.	Remarks.
Adams, James	Montgomery	1863		
Anderson, Joseph	St. Louis	1860	1861	
Anderson, William	do	1865		
Bahn, Dennis	do	1860	1864	Broom maker.
Behmer, August	Gasconade	1857	1858	Broom maker.
Blades, George W	St. Louis	1866		
Blisse, Louie	do	1866		
Block, Eugene	Cape Girardeau	1855	185[illegible]	Removed.
Brady, John	St. Louis	1862	1863	Broom maker.
Brookins, Charles F	do	1859	1863	Broom maker.
Burks, William S	Warren	1864		
Buxton, William R	Henry	1865	1865	Broom maker.
Canavan, James L	St. Louis	1859	1860	Unknown.
Castelloa, James	do	186[illegible]	1866	Broom maker.
Charlton, John	do	185[illegible]	1857	Deceased.
Choate, Jefferson	Bollinger	1861	1864	Expelled.
Christopher, William L	Osage	1863	1865	Broom maker.
Comus, Eugene	St. Louis	1857	1864	Deceased.
Conrad, Henry H	do	1858	1859	At home.
Cooper, Alexander	Cole	1863		
Corby, William	St. Louis	1863		
Cordenski, M	do	1854	1855	Physician.
Cornett, James	Audrain	1859		
Cundiff, Marion	Monroe	1856	1859	At home.
Dewees, Erasmus M	Lewis	1866		
Douglass, George A	St. Louis	1865	1866	Broom maker.
Douglass, William H	Marion	1866	1866	Broom maker.
Douglass, Hugh B	St. Louis	1865	1866	Broom maker.
Doggett, William	Moniteau	1864		
Dunham, John	St. Louis	1864		
Durgnate, Vincent	do	1858	1859	Broom maker.
Eggeman, Louis	do	1859		
Farley, James	do	1858	1866	Expelled.
Farrell, Michael	do	1858	1859	At county farm.
Fitzpatrick, Jeremiah	do	1856	1858	Brush maker.
Fletcher, Richard S	Hickory	1859	1861	Broom maker.
Foley, William	St. Louis	1853	1858	Broom maker.
Footman, Gerard	do	1866	1866	Broom maker.
Forhan, Patrick	do	1866		
Franklin, James D	do	1866		
French, Josiah T	Franklin	1863	1865	Broom maker.
Fulbright, John F	Cape Girardeau	1865		
Gabriel, Francis	Carroll	1859	1861	Demented.
Galey, George H	Clay	1864		
Grace, Patrick	St. Louis	1858	1859	Broom maker.
Hahneman, John	do	1859	1860	Broom maker.
Hare, Thomas	do	1859	1862	Broom maker.
Harp, Ichabod	Stoddard	1865	1866	Expelled.
Heitman, Henry	St. Louis	1851	1853	Brush maker.
Henley, Charles C	do	1863		
Houck, Thomas L. R	do	1853	1854	Unknown.
Hoyle, Edgar H	do	1858	1865	At home.
Hughes, Henry	St. Charles	1852	1862	Removed to Iowa.
Hughes, Benjamin D	Pettis	1860		
Johnson, Nicholas	Jasper	1855	1860	At home.
Johnson, Louis H	Ste. Genevieve	1857	1860	Broom maker.
Johnson, Julius S	St. Charles	1858		
Jones, Samuel W	Marion	1866	1866	Expelled.
Kane, Patrick	St. Louis	1864	1865	At county farm.
Ketchman, Matthias	do	1856	1858	Expelled.
Kirby, Thomas	Clinton	1861	1863	Deceased.
Kohle, John	Ray	1858	1859	Broom maker.

APPENDIX B—CONTINUED.

Names.	County.	Date of Admission	Date of Discharge.	Remarks.
Kramer, Henry F	Lafayette	1865	1866	Broom maker.
Kremer, J hn Fred	St. Charles	1864	1865	Broom maker.
Lainhart, John C	Gentry	1859		
Langley, William C	Fulton	1852		Teacher, died 1864.
Laurence, Abelino	St. Louis	1854	1855	At home.
Louden, Thomas	Callaway	1865	1865	At home.
Lutrell, Churchwell	McDonald	1858	1859	Removed to Tennessee.
Magoffin, John	Pettis	1858	1861	Broom maker.
Manis, Calvin H	Cole	1863	1864	Broom maker.
Maxwell, William H	Washington	1853	1855	Broom maker.
Merwin, John	St. Louis	1865	1865	At home.
Miller, George	do	1861	1862	Broom maker.
Mills, Wilson	do	1863	1864	Vision restored.
Moonan, Thomas	do	1859		
Morgan, James E	Miller	1853	1855	Broom maker.
Morris, Calvin H	Cole	1863	1864	Broom maker.
Mosbach, Charles	St. Louis	1855	1858	Brush maker.
Murphy, Jeremiah	Jackson	1863	1864	Broom maker.
McCall, Charles	Buchanan	1853	1857	Expelled.
McClusky, John	St. Louis	1857	1859	Broom maker.
McIvor, Daniel	do	1865	1865	Broom maker.
Neagle, Andrew	do	1864	1865	Deceased.
Neukom, Frederic	do	1861		
Nunley, John A	Osage	1855	1865	Expelled.
O'Brien, William	St. Louis	1865		
O'Fallon, Michael	do	1865		
Orrick, Charles	St. Charles	1861		
Patterson, George W	St. Louis	1864	1865	Removed to Iowa.
Powers, Francis M	Knox	1853	1860	At home.
Ray, William	Montgomery	1859	1860	At home.
Routen, Lanceford	Miller	1852	1861	Broom maker.
Rubel, Michael	St. Louis	1862	1862	At home.
Saunders, Alfred W	Knox	1852	1854	Mat maker.
Sexton, Ambrose H	Callaway	1857	1859	Broom maker.
Shaye, Daniel	St. Louis	1853	1861	Died, 1864.
Shebels, James	Perry, Illinois	1865	1865	Broom maker.
Simmons, James T	St. Louis	1859	1863	Vision restored.
Stephenson, Charles	Lewis	1865		
Stubbs, Elijah	Illinois	1862	1862	Broom maker.
St. John, Michael	St. Louis	1852	1863	Broom maker.
Tynan, John	do	1863	1864	Broom maker.
Turk, Robert	Audrain	1864		
Valled, Francis	St. Louis	1854	1855	Brush maker.
Valle, M	do	1856	1856	Unknown.
Vickers, John	do	1859	1860	Broom maker.
Wallin, Jefferson	Iron	1856	1858	Killed by accident, 1858.
Wallace, Patrick	Kansas	1861	1862	Broom maker.
Walzell, Francis	St. Louis	1857	1858	Broom maker.
Webster, John Albert	do	1858	1860	Died, 1863.
Wienoff, Bernard	do	1855	1860	Broom maker
Wilkinson, Daniel S	Cape Girardeau	1851	1862	Music teacher.
Williams, Joseph B	do	1858	1863	At home.
Wilmes, Antoine	Gasconade	1860	1861	Broom maker.
Woodcock, James	St. Louis	1866	1866	At home.
Wooliver, Jacob L	Dade	1859	1864	Broom maker.
Wooliver, Ebenezer H	Dent	1863		
Yates, Willard G	Kentucky	1851	1854	Taught willow work.
Zellar, Alexander W	St. Louis	1863	1865	Vision restored.
Adams, Mary E	Platte	1853	1861	At home.
Bayles, Emma W	St. Louis	1866		
Bernhart, Anna	Chariton	1859	1866	Insane.

APPENDIX B.—CONTINUED.

Names.	County.	Date of Admission.	Date of Discharge	Remarks.
Brown, Fannie	St. Louis	1859	1866	Removed to Pennsylvania.
——, Nancy	do	1857	1858	Deaf, dumb and blind.
Caine, Kate	do	1863	1866	At home.
Campbell, Sarah A	do	1866		
Courtright, Elizabeth	Cole	1853	1863	At home.
Cox, Virginia Belle	Scotland	1864		
Crawford, Mary Jane	Pettis	1865		
Crudis, Anna J	St. Louis	1851		Teacher.
Cundiff, Harriet	do	1852	1853	Removed to Indiana.
Dixon, Jessie	do	1863	1866	Vision restored.
Doyle, Margaret	do	1866		
Durning, Eudora	do	1859	1861	Vision restored.
Durning, Lucinda	do	1859	1862	Music teacher.
Elliott, Julia	Ray	1857	1859	At home.
Fitzgerald, Mary	St. Louis	1859	1865	Removed to Illinois.
Goerisch, Amelia	do	1865		
Glenn, Anna	do	1864	1866	Vision restored.
Gupton, Lucy	Macon	1859	1866	Died, 1866.
Gupton, Temperance	do	1859	1866	At home.
Gupton, Rebecca	do	1865	1866	Vision restored.
Hamburg, Theresa	St. Louis	1863		
Harris, Jennie	do	1866		
Hart, Alice	do	1852	1853	Removed from State.
Hassell, Ella T	Lafayette	1865	1866	Deceased.
Hayden, Elizabeth W	Cape Girardeau	1855	1861	At home.
Heitskamp, Josephine	St. Louis	1859	1864	At home.
Hill, Alice	Caldwell	1866		
Houck, Mrs. E. F	Hannibal	1851	1854	Teacher at institution.
Hunter, Mary Jane	Cole	1863	1864	Vision restored.
Jarrold, Margaret M	Bollinger	1865		
Kane, Catharine	Crawford	1864		
Kavanaugh, Fannie	St. Louis	1856	1858	Vision restored.
Latour, Eugenia	do	1864	1865	Vision restored.
Mayberry, Emma	Livingston	1859	1865	At home.
Meredith, Dorthula Jane	Pemiscot	1865		
Miller, Sarah E	Perry	1866		
Miner, Mary	St Clair	1860	1861	At home.
Mockbee, Mamie	Cass	1861		
McGinnis, K. E. C	Dade	1860		
Neal, Jennie D	Cape Girardeau	1859		Teacher at institution.
Neal, Elizabeth	do	1865	1866	Vision restored.
Odle, Sara R	Moniteau	1857	1862	Teacher.
Painter, Belle	Platte	1857		
Peery, Martha	Gentry	1859	1861	At home.
Quinn, Mary Ellen	St. Louis	1866		
Rentz, Christina	do	1855		Teacher at institution.
Rumsey, Mary	Cole	1863	1864	Vision restored.
Russell, Matilda	Miller	1865	1866	Removed from State.
Simsted, Anna M	St. Louis	1860	1861	At home.
Small, Sarah	Grundy	1860	1865	Removed to Illinois.
Smedeke, Anna	St. Louis	1858		
Smith, Fannie M	Bollinger	1865	1865	At home.
Sturmer, Catharine L	St. Louis	1865		
Stuart, Mary R	do	1863	1865	Removed to Illinois.
Taylor, Elizabeth L	do	1851		Deceased.
Taylor, Frances	do	1864		
Toole, Mary	do	1865		
Truel, Mary W	Pettis	1864	1865	At home.
White, Mary Jane	Boone	1861	1864	At home.
Williams, Sarah	Platte	1855	1857	Expelled.
Wilson, Lucinda E	St. Louis	1866		

APPENDIX B—CONTINUED.

Names.	County.	Date of Admission.	Date of Discharge.	Remarks.
Winnifield, Mary A.	Cass	1860	1863	Expelled.
Young, Mary Ann	St. Louis	1864	1866	Died of cholera.
Zattman, Anna	do	1851		Teacher at institution.

GENERAL SUMMARY.

Males	118
Females	67
Total	185

EMPLOYES IN THE INSTITUTION.

Names.	Occupation.	Compensation.
Henri R. Foster	Principal	$1,000 per annum.
D. R. Haynes	Assistant	700 " "
Mrs. E. Houck	Assistant	150 " "
Miss Christina Rentz	Assistant	30 " "
Miss Anna Zattman	Assistant	30 " "
Henry Robyn	Professor of Music	1,000 " "
Miss J. D. Neal	Assistant	30 " "
Miss Anna Crudis	Assistant	30 " "
D. S. Wilkinson	Assistant	100 " "
Mrs. J. S. Wilkinson	Matron	375 " "
Andrew Keichle	Foreman Workshop	360 " "
William Meisner	Porter	20 per month.
Mrs. M. A. Morris	Seamstress	20 " "
Mrs. M. Fitzgerald	Cook	15 " "
Mary Barnes	Assistant cook	12 " "
Margaret Eagan	Laundress	12 " "
Margaret McCormick	Laundress	12 " "
Annie Hickey	Chambermaid	12 " "
Margaret Moroney	Diningroom girl	12 " "

REGULATIONS FOR THE ADMISSION OF PUPILS.

All persons applying for the admission of pupils, will please answer the following questions with as much accuracy as possible, as the success of the application will depend upon the answer given :

1. What is the name and age of the person for whom application is made ?
2. At what age did he or she become blind ?
3. What was the cause of blindness ?
4. What is the degree of blindness ?
5. Is the blindness accompanied by any physical deformity ?
6. May he be considered intelligent and susceptible of moral culture ?
7. What are his personal habits and moral culture ?
8. Can his or her parents or guardians pay any, and how much, of the sum required for his or her support ?
9. Are any relatives blind, deaf and dumb, imbecile or insane ?
10. Has he or she been vaccinnated ?
11. If an adult, what was his occupation before becoming blind ; and were his habits industrious ?
12. If an adult, may he be considered active and industrious, and of sufficient physical strength to pursue an industrial occupation ?
13. What is the exact postoffice address of the parents or guardians ?
14. Will the county court undertake to clothe him or her ?

Every pupil is expected to come provided with at least two changes of wearing apparel. It is expected that pupils will return to their homes during the summer vacation.

All letters should be addressed to the Principal of the Institution.

SIXTH BIENNIAL REPORT

OF THE

MISSOURI INSTITUTION FOR THE DEAF AND DUMB

FOR THE YEARS 1865-66.

OFFICERS OF THE INSTITUTION.

BOARD OF COMMISSIONERS,

J. W. MARTIN, *Chairman.*

W. W. TUTTLE, *Secretary.*

T. B. NESBIT, *Treasurer.*

J. DUNN, JR.

D. NOLLEY.

SUPERINTENDENT,

WILLIAM D. KERR, A. M.

TEACHERS,

R. P. KAVENAUGH,

B. T. GILKEY,

MRS. LUCY A. GILKEY,

MRS. DOLLIE S. KERR.

MATRON,

MRS. SUSAN M. KERR.

REPORT OF THE SUPERINTENDENT.

To the General Assembly of the State of Missouri:

The sixth biennial report of the Missouri Asylum for the Deaf and Dumb, being for the years 1865–66, is herewith respectfully submitted.

Since our last report to the Twenty-third General Assembly, nothing has transpired in connection with the Asylum which demands special or unusual attention; yet, in view of the fact that in prosperity and success we have been permitted to pursue our work, our gratitude is recorded for the Divine favor by which the Asylum has continued to promote the blessed design of its establishment.

Two deaths have occurred among our pupils; one, Simeon P. Morris, a good youth, conscientious and upright, kind and pleasant in disposition, but delicate in constitution—subject to frequent spells of giddiness or fainting, strongly indicative of an epileptic tendency. His death was sudden and unexpected; for only a few moments before he had been conversing cheerfully with one of his associates. This occurred June 6, 1865, in the nineteenth year of his age. The other, John Dahl, died April 30, 1866. He was idiotic, and of a feeble constitution. His disease was dysentery. He was sick only two days, and died suddenly, at the age of thirteen years.

There has been only one other case of severe sickness among the pupils. Chills and fever, in a mild form, have prevailed to some extent. Since the opening of the present session we could not hope to show a better record of good health. We attribute our comparative exemption from all contagious and epidemic diseases to habits of personal cleanliness, wholesome food, comfortable, well-ventilated rooms, and a salubrious climate.

There has been a gradual increase of the number of pupils. Thirty-eight were under instruction at the date of the last report. The number now present is sixty-six.

In regard to the actual number of deaf mutes in our State, we ought not to be misled by census returns, for these must necessarily be far from accurate. Even upon the data furnished from every source, it is impossible, perhaps, to arrive at a reliable close approximation of the number thus afflicted. Taking the best sources of information within our knowledge, we have been led to the supposition that the number will exceed five hundred. The estimate would be greater but for the fact that during the temporary closing of the Asylum, in consequence of the war, a considerable number of the parents of deaf-mute children removed from the State, in order to their own safety, and to secure for their children the undisturbed benefits offered by other institutions. Whether any of these shall return or not, there will be, as always, an increasing number of these unfortunates, proportionate to the population, and demanding benevolence and culture.

Of the number we may suppose to be now in the State, two hundred and twenty-four have, for a longer or shorter time, enjoyed the advantages here offered for their instruction. Of these, sixty-six are still under tuition. One hundred may be a fair estimate of the number of those whose advanced age precludes the idea of their receiving any permanent benefit here, sufficient to warrant the labor and expense to be incurred. A number, perhaps over sixty, are still too young to be transferred from parental care and influence for the sake of our training and instruction. After making these deductions from the whole number of deaf-mutes now in the State, the remainder will be over one hundred, who, for the sake of themselves, their friends and the whole people, ought to be now in a course of preparation for a useful life and citizenship.

By the wise and timely provision made by the General Assembly, the Asylum buildings, both internally and externally, have been greatly improved—a work which their previous condition urgently demanded. The appearance of dilapidation has disappeared, and in its

place an attractive neatness and good order are visible. The rooms have been appropriately refurnished, and the bedding is new and comfortable. Additions have been made to the library until it is beginning to assume respectable dimensions. The same may be said of our philosophical apparatus. These adjuncts to the work of instruction are especially adapted to the improvement of the deaf and dumb; for they, in a degree far above others, are compelled to acquire knowledge by means of the eye. Much of what they learn is by what they see, and this dependence upon a special sense cultivates a facility in its use to which others do not easily attain. Such provision for their benefit will not, therefore, be too highly estimated.

We do not believe deafness is an insurmountable obstacle to a scientific education. We indorse a high standard of qualification for deaf as well as for hearing teachers. The former, of course, require more time, labor and patience in making literary and scientific attainments. The latter make the same acquirements in a much shorter period, and become even more thorough and proficient in them.

It may be proper in this connection to remark that quite a number of deaf children are, however, incapable of much mental development. The cause of this inferiority has been fully set forth in former reports. Some in a state of stolid idiocy are sent to the Asylum every year. Some of these, indeed, may be improved to a degree truly astonishing. Those of them who cannot be benefited by our methods of instruction are sent home.

We desire to call special attention to the latter class, too often identified with the deaf and dumb as such, but really occupying a distinct position, and demanding a different care and treatment. The fact, not that they are deaf-mutes, but that they are idiotic, is the distinguishing feature of their case, and it is only with the latter they should be classed. When placed with the former class, they require almost as much attention and care, and are almost completely isolated, as if placed in any ordinary school of speaking children, and their presence creates a sort of two-fold institution under one roof. Their true place, in order to their true welfare, is with those who are similarly affected as to mind, whether deaf-mutes or not. This fact, together with another, viz: that in Missouri there is a larger number than is generally supposed of idiotic children, some deformed or almost helpless, and thrown upon the world friendless and unprovided for, leads to the submission of the question, whether the interests of humanity do not require some arrangement for the better care, and, as far as possible, the improvement of these imbeciles. Establishments for them are not unknown. Massachusetts, Kentucky and other States have provided them, and others are still moving toward the same purpose. In some places private institutions have been opened for their comfort and improvement; but these are exceedingly limited in their usefulness and supported only by those who can fully pay for the benefits they afford. A public institution for them would be rather a home than a temporary school, and would be, at the same time, a merciful provision for them, and a blessing to the people at large.

The law requiring certificates of poverty is a hindrance to our greatest success. We stated in our last report that "other institutions in different States, we believe in all, have applied the true and proper remedy for this evil, so much in the way of success, by freely opening the doors to all deaf and dumb children in the State, without the requirement of other certificates than the simple but sufficient fact of their affliction." This obstacle to our usefulness we earnestly hope may be removed for the sake of many deaf-mutes, who will otherwise never receive that moral and mental culture their dark and sad condition so imploringly calls for. The voice of a kind father, giving them wise and heavenly instruction, is never heard. Their ears are closed to the sweet tones of a mother's love and affection. Shall these, without any fault of their own, be denied the intellectual advantages which can only be acquired through the medium of our beautiful and cultivated system of signs? The deaf and dumb never fail to remember their benefactors with lasting gratitude.

The pupils during the period covered by this report have made, with a few exceptions, gratifying and commendable progress in the studies marked out for them. The rules and regulations have been generally and promptly observed.

One of our teachers, Mrs. Lucy A. Gilkey, who for three years has faithfully performed her duties as an instructress in the Asylum, has dissolved her connection with it. She re-

tires from the profession at the close of the year, with the best wishes of all the officers and pupils for her future usefulness and happiness.

During the present year, the superintendent, in company with one of the commissioners of the Asylum, visited a number of institutions in the Eastern States similar to our own. We were most cordially received by their officers, and all desired information was cheerfully given. and opportunities for personal examination afforded, as to improvements in buildings, the methods employed in instruction, with the appliances thereto, and other arrangements looking to the best possible care and culture of the deaf and dumb. The visit was, in all respects, gratifying personally, and useful to our work at home. The opportunity afforded us for considering again the advantages of introducing articulation as a mode of instruction has only confirmed the unfavorable opinion of it formerly presented, and convinced us that only in a few instances, and these semi-mutes, the system can be employed with any real benefit; and such instances are merely exceptional.

As with hearing children, so with deaf-mutes: differences are to be observed, not only in intellectual power, but in application and a desire for knowledge. One class appreciate the importance of an education, and are eager to acquire it; another class are mainly influenced by present enjoyment. After the ordinary vacation the former hasten again to their instructors and their studies, with delight in the privilege; the latter would willingly forego the profit of study for the sake of sports and pastimes, or for a mere idle, listless and useless life. The partial isolation from other youths which their condition necessitates might seem to be a reason for the character of amusements which they ordinarily prefer, such as hunting, fishing, visiting and traveling, and a palliation for a devotion to them. But there is another reason why a few of these children and youth neglect or refuse the advantages of instruction, and devote themselves to mere enjoyments—or worse, idleness, with a life of dependence. Their parents yield too often to the impulses of a morbid attachment cherished in consequence of their childrens' privation, and, with an unwise indulgence, permit the formation of habits which prove the source of future sorrow to both parent and child. Sound reason and true parental affection should teach the importance of proper restraint and obedience in deaf mutes, as well as in speaking children. These views are here expressed to stimulate and encourage parents to a faithful discharge of their duties.

In our last report we said: "ours is the only institution in the United States where the male pupils did not learn some one of the various trades" With great satisfaction we now add that this exception in a few months will cease to exist. Workshops are in course of erection, where our boys may acquire a trade. The value and even the necessity of this arrangement are too evident to need argument. All deaf-mute boys of ordinary capacity, notwithstanding the loss of two powers, can become thus useful members of society, instead of being a burden upon it. The girls have, as nearly as possible, corresponding advantages, by instruction in domestic affairs and in the use of the needle. Those evincing a special taste in any department of the latter art, are encouraged to a proficiency in it.

We have in former reports given our views, substantiated by the best authorities, upon the attempts made to restore hearing to the deaf; it is altogether unnecessary here to repeat them. We must expect empiricism will continue to have its advocates and votaries; but, until a well attested case is produced, we must maintain as a truth the repeated assertion, that the congenital deaf cannot be restored, and the hopes held out to the contrary to anxious hearts are as baseless as they are cruel.

The future of our institution has not been represented with the pen of inspiration. To human view that future will be one of progress and enlargement. If the development of intelligent benevolence is proportionate to that of the natural resources of the State, of its wealth and population—if in its anticipated rapid growth and greatness we keep pace with other States in providing for the wants of the afflicted, and elevate not a class, but all our people, to a high level of intelligence, we already foresee that the Missouri Asylum for the Deaf and Dumb will rank as one of the largest in the United States; for this will be demanded by the growing numbers of those who shall seek its benefits.

The time has fully arrived, as we think, when attention should be recalled to a subject

directly affecting the comfort and safety of every one within our walls. As long ago, probably, as 1857, the Legislature took into consideration the propriety of lighting with gas the two public institutions in this place. This desirable object, for various reasons, was never carried into effect.

Now, with increasing numbers, the risk attendant upon our present system of lighting is greatly enhanced, and a heavy sense of responsibility compels us to present the subject again for your serious consideration. Scarcely any one not connected with an institution similar to ours can appreciate the continual anxiety, the frequent causes of alarm, the constant dread of impending evil, arising from a method, very dangerous at best, of lighting such a building with such occupants as ours. Accidents, fearful and fatal, are continually occurring in families and public buildings where great care is apparently exercised. We are more or less liable to similar accidents, where it is impossible for a wise head and steady hand to accompany every lamp at every moment, and where a slight act of thoughtlessness or an unavoidable accident might spread consternation or cause the most painful and fatal results. It is our purpose to refrain from asking for a direct appropriation to accomplish this greatly needed and desired object. We may state, however, that the improvements which have been made in the manufacture of gas for public and private houses have reduced the expense, and true economy, as well as safety to life and property, urge the adoption of this method.

The last General Assembly made an appropriation of five hundred dollars to purchase books for the Asylum library. Two hundred and sixty-three dollars of this sum have been expended. The balance is in our hands, and will be also used as designed.

We cordially invite a committee from each branch of the General Assembly to visit the Asylum at an early day, and examine closely into its management, both in the intellectual and domestic departments.

We are gratified to say that the commissioners have made themselves familiar with the wants of the institution, and, by their harmonious and judicious action, have done all they could to promote the humane design of its organization.

W. D. KERR, *Superintendent.*

A list of the papers sent gratuitously to the asylum for the pupils will be found below. In their name we thank the publishers of these papers for their contributions:

Mexico Messenger, W. D. Davenport.
Mexico Ledger, Amos Ladd.
Montgomery Independent, Robert E. Verdier.
Macon Weekly Times, Clark H. Green.
Missouri Statesman, W. Switzler.
LaGrange National American, C. H. Howe.
Fulton Telegraph, J. B. Williams.

LIST OF PUPILS CONNECTED WITH THE INSTITUTION SINCE JAN. 1, 1855.

Name of Pupil.	Postoffice.	County.
Ingram, Anna C.	Chillicothe	Livingston.
Mefford, Martha A	Palmyra	Marion.
Benneker, Mary	St. Louis	St. Louis.
Stuart, James L	Capau Gris.	Lincoln.
White, Hamden	Keytsville.	Chariton.
Patterson, William	Greenton.	La Fayette.
Lacy, Octavia C	Cambridge	Saline.
Fisher, Barnett	Ashley	Pike.
Young, William W	Florida	Monroe.
Jones, George	St. Louis.	St Louis.
Russell, Thomas F	St. Louis.	St. Louis.
Terry, Elijah T.	College Mound	Macon.
Kavenaugh, Maria L	Glasgow	Howard.
Fravel, Anna M	St. Louis	St. Louis.
Stuart, Ruth A	Smith City	Pettis.
Davis, Evaline	Tully	Lewis.
Lewis, James.	St. Louis.	St. Louis.
Bunton, Ellen A.	Wentzville	St. Charles.
Connelly, Martha I	Columbia.	Boone.
Newell, Sallie M	Fulton	Callaway.
Duffield, Flora	Warrensburg	Johnson.
McBride, Nannie	Centralia	Boone.
Grimmett, Theodosia A	New Boston.	Macon.
Ruff, Jacob F	St. Louis.	St. Louis.
Laramore, Paulina A	New Haven	Franklin.
King, Ann E	Bridgeton	St. Louis.
Davidson, Octavia A	South Point	Franklin.
Cahill, Mary F.	Pond	St Louis.
McMullen, Eliza	Concord	Callaway.
McCoy, Nannie	Independence	Jackson.
*Simeon, P. Morris	Louisville	Lincoln.
Hubbard, Maria	St. Louis	St. Louis.
Farity, Andrew.	St. Louis.	St. Louis.
Minor, Charles L.	Rocheport.	Boone.
Rogers, James A	Warren	Marion.
Nelson, David.	St. Louis.	St. Louis.
Hord, Edwin	Cote Sans Dessein	Callaway.
Smith, Mary D.	Bell Air	Cooper.
Kemper, William S	Philadelphia.	Marion.
McCamley, Henry.	St. Louis.	St. Louis.
Wolf, John H	St. Louis.	St. Louis.
Lucas, Martha H.	Cambridge	Saline.
Webberly, Sidwell A.	St. Louis.	St. Louis.
Campbell, William T.	St. Louis.	St. Louis.
Bynor, Dora	St. Louis.	St. Louis.
McCamley, Mary.	St. Louis.	St. Louis.
*Dahl, John	Longwood.	Pettis.
Warhurst, Sarah E	Salisbury	Chariton.
Gigas, Emma	Tipton.	Moniteau.
Finnan, Kate.	St. Louis.	St Louis.
Terry, John H.	College Mound	Macon.
Estis, Joel W	Liberty.	Clay.
Colyer, Sylvester W.	Appleton.	Cape Girardeau.
Elsey, Keziah C	Chamois	Osage.
Shamley Jacob	St. Louis.	St. Louis.
Finnican Mary.	St Louis.	St. Louis.
Finnican, Thomas	St. Louis.	St. Louis.
Maul, Henry	St. Louis.	St. Louis.
Stodsick Frederick W.	St. Louis.	St. Louis.

* Deceased.

LIST OF PUPILS—*Continued.*

Name of Pupil.	Postoffice.	County.
Minor, Lewis	Fulton	Callaway.
Smith, Elizabeth	California	Moniteau.
Marksburg, Joseph A.	Benbow	Marion.
Grieger, Emilie	St. Louis	St. Louis.
McCamley, Ann	St. Louis	St. Louis.
Buehler, John	Hermann	Gasconade.
Hord, Mary E.	Cote Sans Dessein	Callaway.
Guerin, Edwin T	Cambridge	Saline.
Mefford, Nannie J	Palmyra	Marion.
Hacke, Wilhelmina	St. Louis	St. Louis.
Perkins, Clara S	Salisbury	Chariton.
Whiteaker, Francis A. M	Dent Court House	Dent.
Payne, John L	Ozark	Christian.

COMMISSIONERS' REPORT

The Board of Commissioners of the Missouri Institution for the instruction of the Deaf and Dumb respectfully submit the following biennial report to the General Assembly, for the years 1865 and 1866, to the date of our annual settlement, made November 26, 1866, inclusive:

At the date of our last biennial report it was our painful duty to mention the embarrassments under which the board labored, being without sufficient means to repair the buildings which were then in a greatly damaged condition, consequent upon the temporary suspension of the institution, and its occupancy by the military. With confidence, however, we expressed the hope that the unfortunate mutes throughout our great State, whose only hope of deliverance from that state of darkness and ignorance which can only be relieved through the medium of sign language, would not be left unprovided for. Our hopes were more than realized, by the ample provisions made by the Legislature then in session, for such wants as were imperative for the comfort of those for whom this institution was provided; and with pleasure we report to the present Assembly that the buildings have been entirely renovated, the rooms neatly painted and papered and furnished comfortably throughout. While these improvements have involved the expenditure of all appropriations made for that purpose, we cheerfully refer to the highly improved condition of the buildings, internally and externally, as being fully commensurate with these expenditures; all of which have been prosecuted under the immediate supervision of the Board of Commissioners, with all practicable care and economy. By reference to the appended report of the treasurer it will be observed that a careful account has been kept of all moneys received and expended, which, also, exhibits the financial condition of the Asylum at the date of the annual settlement of the board, made November 26, 1866, as follows:

Amount received from all sources since last report	$27,977 98
Amount gross expenditures	25,102 49
Leaving a balance in the hands of treasurer of	$2,875 41
due as follows:	
To Indigent Fund	$ 584 92
Fund for building shop	2,290 49
	$2,875 41

OF IMPROVEMENTS MADE.

The roofs on all the buildings being deficient, the board determined to remove the slate and cover anew with tin. This improvement, although expensive, owing to the high price paid for material and labor, has resulted in obtaining a substantial covering, alike impervious to fire and water, which, with due care, will last for many years, greatly enhancing the safety and comfort of the buildings.

HOSPITALS.

A pressing necessity for comfortable apartments, in cases of sickness, required some important changes to be made in the arrangement of the rooms in the north wing, by which very desirable hospital rooms have been obtained for both sexes. These rooms have been neatly fitted up and carpeted, giving an air of cheerfulness and comfort to the sick chamber, which is so essential to apartments of this character. This improvement we deemed imperative; for, while during the period of two years past the institution has been greatly blessed with health, out of so large a number as may be expected to assemble here, it is but reasonable to expect that such a provision for the sick will be needed for all the time to come.

INTERNAL IMPROVEMENTS.

Having already mentioned the entire renovation of the interior of the building, refurnishing neatly and comfortably all the dormitories and domestic apartments, as far as is necessary for present demands, the minutiæ of which it would be tedious to mention, it only remains for us to remark that the board has endeavored to make such investments as would add to the comfort of the pupils, without reference to display; and we flatter ourselves that this important object has been attained in every improvement we have made.

OUT-BUILDINGS AND GROUNDS.

Several buildings of a permanent character have been erected, fencing partially repaired, and the general appearance of the exterior greatly improved. The necessity to excavate and gravel the grounds back of the building will be apparent even to a casual observer, which has added greatly to the appearance as well as the comfort of that locality. An orchard of several hundred trees has been planted, from which great benefit will be derived, as well as it will give employment for a time to some of the pupils who may incline to horticultural pursuits.

WORKSHOPS.

At the adjourned session of the Legislature, by act approved February 19, 1866, the sum of three thousand dollars ($3,000) was appropriated for the purpose of building and furnishing a workshop for the institution. The board did not succeed in effecting a satisfactory contract for brick to erect this building until late in the season, and have been compelled to delay this desirable improvement until next spring, when, with the foundation already made and all material upon the ground, it is expected that a building, 24x60 feet, two stories high, will be rapidly pushed forward to completion. The sum appropriated is not sufficient to erect a building necessary, and to supply suitable tools and material to prosecute the branches of trade which it is the design of the board to introduce. To erect a temporary building was thought to be unwise, in view of the increasing demand for this branch of instruction, and the sum appropriated will not, at present rates of material and labor, more than erect the building, leaving the board without means to supply the necessary tools and machinery, to say nothing of material to work upon. When once in operation, this branch of instruction will support itself; but all things must have a beginning. To complete this wise and essential enterprise it will require an additional appropriation of two thousand dollars ($2,000), which we suggest in full confidence that its importance, to all whose attention may be called to the subject, will be apparent.

OF OFFICERS.

We take pleasure in referring your honorable body to the foregoing report of the principal, Professor W. D. Kerr, whose valuable services are still retained in the institution. His report is full of highly interesting details as to the condition of the institution and of its history since our last report. The long experience of the writer in educating the deaf, as well as the possession, in an eminent degree, of those qualifications so necessary to this important branch of instruction, will commend his suggestions to your careful consideration, and also furnish to those who are interested in this unfortunate class, information which can only be attained after many years of close application and study. The Board of Commissioners are also happy to state that they have received the most hearty co-operation of all the officers and teachers of the institution, and congratulate the friends of mute instruction in our State that we have been able to retain the services of a corps of instructors whose reputation for efficiency and high moral character should be a source of comfort, especially to parents who commit their afflicted children to their charge.

The services of Mrs. Susan M. Kerr is also retained as matron of the institution. Her motherly care for the unfortunate mute, in sickness and in health, has found a response in many a mother's heart throughout our State, as has also her executive ability in the domestic department been appreciated by the board, who bear this public testimony to her usefulness in the important position she occupies.

HEALTH OF THE INSTITUTION.

The report of the attending physician, which are appended herewith, presents a gratifying condition as to the health of the officers and pupils. When it is remembered that the deaf-mute is most generally delicate, when compared with those not suffering from the causes resulting in his abnormal condition, the proportion of cases of sickness and death is very small, and speaks favorably of the healthy location of the institution, its sanitary regulations, and the skill and attention of the attending physician.

Owing to a change in the location of Dr. J. W. Martin, our former physician, the board appointed Dr. E. T. Scott, who, from a long experience in the treatment of this class of patients, pointed him out as the most suitable person we could employ to fill this vacancy. The services of these gentlemen during the past two years, and the former for several years previous, merit the approbation of the board, and it affords us pleasure to give this public expression of our satisfaction.

Having briefly referred to the more important transactions which have occurred since the date of our last report, we shall now, with equal brevity, call your attention to a few suggestions, which we trust may be attributed to a sincere desire on our part to advance the usefulness of this noble charity. The annual appropriation made by law for the support of this institution is adequate to its wants for all incidental expenses. But in the onward march of our great State toward the front, ranking, as it must soon do, those of our sister States who are now far in our advance in public improvements, it is but in keeping with this progressive spirit to desire that our public institutions should also keep pace with this grand forward movement. The high state of moral and intellectual culture to which the deaf-mute may attain, as well as those high principles of humanity and benevolence which have characterized legislation for the deaf and dumb throughout the world, demand that with all due economy and prudent expenditure the Missouri Institution for the Deaf and Dumb be continued under the fostering care of liberal legislators until it shall have been provided with all those modern improvements now used in older institutions, which conduce so much to the health, improvement and culture of those children of misfortune who so strongly appeal to our charity and sympathy.

To this end you will permit us to say that when it may seem expedient to make appropriations for that purpose, it will be highly desirable to provide the following improvements, to wit:

Machinery for heating buildings by steam.

Machinery for lighting buildings by gas.

Purchasing thirty to fifty acres of land for farming purposes.

The necessity for facilities to employ the male pupils (such as have a preference for agricultural pursuits) in this healthy and ennobling exercise a certain portion of their time, requires no elaborate argument on our part, and we commend the subject to your benevolent consideration as being highly important, if not an imperative want.

The immediate wants of the asylum are as follows:

Appropriation for completing mechanical department	$2000 00
Appropriation for providing bath rooms and apparatus	2000 00
Appropriations for improvements not included in incidental expenses	1000 00

The board do not think it necessary to go into any detailed argument to urge upon your intelligent body the necessity of making liberal provision for this most useful institution. We cannot shut our eyes to the fact that, to a very large extent, the mutes of our State, if left uneducated, must sooner or later become beneficiaries in some form; and since it is no longer a problem as to whether they may be made intelligent and useful citizens, it becomes not only a question of philanthropy but of sound policy, to give them every advantage, in order that in due time they may take their positions in society, depending upon their own abilities for support, instead of dragging out a miserable existence, in darkness alike to things both of time and eternity.

We cheerfully commit the interests of the Deaf and Dumb Asylum into your hands, requesting that at an early day a committee from both houses may be appointed to visit the institution, that they may see not only what has been accomplished, but also what may yet be done in behalf of the five hundred deaf mutes throughout our State.

Respectfully submitted.

DANIEL NOLLEY,
THOMAS B. NESBIT,
JOHN W. MARTIN,
JAMES DUNN, JR.,
W. W. TUTTLE.

Commissioners.

PHYSICIAN'S REPORT.

To the Board of Commissioners of the Missouri State Deaf and Dumb Asylum:

GENTLEMEN—During that portion of the past two years in which I have attended to the medical demands of the institution, I am happy to state that the pupils have enjoyed remarkably good health. Two delicate children, with latent chronic disease previously undermining the constitution, were attacked and died quickly and suddenly, the system offering little or no resistance to disease. Aside from this, I think we have had not more than one or two cases of any gravity among the officers or pupils. True, they have had some share of lighter ailments, such as chills, sore eyes, bad colds, etc., but their general health has been excellent, requiring comparatively but little attention from the physician. During the last year this may be attributed in some degrees to the general healthfulness of the seasons in this locality, but the same remark would hardly apply to the previous year, when good health prevailed in the institution at times when there was sickness in the vicinity. But I attribute this to the airy, healthful location and construction of the buildings, together with the vigilant watchfulness and parental care of the officers of the institution, in reference to the health of the pupils.

Respectfully,

E. T. SCOTT.

TERMS OF ADMISSION.

All applicants must be seven years of age and under thirty.

Pupils who are not beneficiaries of the State will be charged one hundred and fifty dollars per annum, for board and tuition, which in all cases must be paid as follows: One-half upon entering the institution, and the remainder on the first day of February succeeding.

Pupils who are beneficiaries of the State must bring a certificate from the county court of their respective counties, the form of which is appended to this report.

Each pupil must be furnished with comfortable clothing for one year, each article marked distinctly with the owner's name. A good trunk must also be furnished.

Parents must furnish money to procure books, stationery and postage stamps for their children, and in all cases their traveling expenses must be paid to and from the institution.

The superintendent will not be responsible for any moneys sent to the children, but will take charge of all moneys sent to his care, and dispose of it as parents may direct. Except for good and sufficient reasons no pupil will be permitted to leave the institution until the close of the session.

No idiotic deaf mute will be received in the institution. None need apply.

The superintendent will not be responsible for any trunks, baggage or clothing left at the institution for a longer period than six months.

When it is established that a pupil is in indigent circumstances, and the parents unable to furnish necessary clothing, etc., it will be supplied by the Board of Commissioners.

All pupils, both male and female, will be expected to perform such duties as may be required by the superintendent and matron; and male pupils to take some branch of mechanical arts, when such is provided, reference being had to the wishes of their friends.

All letters of inquiry should be addressed to W. D. Kerr, Superintendent of the Asylum for the Deaf and Dumb, at Fulton, Missouri.

The opening of the session is the most suitable time for admitting pupils, and it is particularly desired that parents have their children ready in time; although none will be rejected at any period of the session.

The annual session begins on the second Monday in September, and closes the first Thursday in July.

Written answers to the following questions should be sent with each pupil to the Asylum, unless accompanied by some one who can furnish the desired information, to wit:

What is the name of the person? If a middle name, state it.

What is the name of parents (father and mother), or in case both are dead, the name and postoffice address of the guardian or nearest friend?

When and where born? Give year, month and day.

Was he born deaf?

Has he any relations deaf and dumb?

Were his parents related before marriage? e. g.: were they cousins?

At what age was his hearing lost?

By order of the board.

W. W. TUTTLE, *Secretary.*

FORM OF CERTIFICATE.

OFFICE OF COUNTY COURT, ——— COUNTY,
———, MISSOURI, 18—.

This is to certify, that on the —— day of ——, 18—, the county court of —— county, upon satisfactory evidence produced, order that it be certified to the Commissioners of the Deaf and Dumb Asylum, that —— is —— years of age, is a resident of this county, is deaf and dumb, and is a proper object of the charity of the State.

[L. S.] A true copy from the record.

Attest: ———, *Clerk.*

STATISTISTICS CONCERNING INSANITY.

The following report from St. Vincent's Institution for the Insane, speaks for itself:

L. D. MORSE, ESQ: In compliance with your request we send you our report. I hope it is satisfactory.

Very respectfully,

SISTER M. JULIA, *Superintendent*,
per SISTER ROSALIE.

Number of Patients remaining in Institution January 1, 1866.

Males	39
Females	75
Total	114

Number of Patients received from January 1, 1866, *to January* 1, 1867.

Males	88
Females	80
Grand total	282
Number of patients under treatment during the year	282

Discharged.

Restored	71
Improved	65
Unimproved	10
Died	13
Total	159

Number of Patients remaining in Institution January 1, 1867.

Males	45
Females	78
Total	123

REPORT OF COUNTY FARM SUPERINTENDENT.

The Register of the County Poor House, or County Farm, as it is called, shows that from the first day of January, 1866, to the first day of January, 1867, the number of permits issued by the County Inspector of County Poor House was 322.

The nativities of persons to whom permits were granted, were as follows:

Germany	78
Ireland	163
England	14
Americans, including seventeen colored persons	50
Other nationalities	17
	322

Of these there were Union soldiers 27

Whose nativities were as follows:

Germany	17
Ireland	3
Americans, including one colored	6
Canada	1
	27

Of the number of females three were the widows of Union soldiers, three natives, two Germans, and one American.

The number of males admitted was	212
The number of females admitted was	110
	332

Very respectfully,

JOHN H. TICE, *Superintendent County Poor.*

POLITICAL STATISTICS.

The following are the election returns of the first general election for Superintendent of Public Instruction, held under the new Constitution :

COUNTIES.	1866. Superintendent.		1865. New Constit'n.		1864. President.	
	Parker, Republican.	Williams, Democrat.	For.	Against.	Lincoln, Union.	McClellan, Democrat.
Adair	704	129	569	25	797	162
Andrew	1079	180	781	126	1141	60
Atchison	587	13	246	172	639	7
Audrain	239	284	160	474	126	392
Barry	191	95	99	33	197	17
Barton	67	50	.....	.....	23	.....
Bates	216	96	.....	.....	27	13
Benton	600	275	309	88	574	21
Bollinger	255	132	.....	.....	243	12
Boone	135	631	132	1763	262	813
Buchanan	1447	1292	866	789	1914	813
Butler	27	49	.....	.....	.....	.....
Caldwell	496	207	405	58	496	88
Callaway	.....	.....	146	1630	274	965
Camden	855	32	290	42	468	1
Cape Girardeau	804	370	696	448	1213	551
Carroll	669	460	291	304	285	113
Carter	10	.....	.....	.....	.....	.....
Cass	391	336	167	73	76	105
Cedar	352	15	202	12	297	.....
Chariton	530	564	236	68	363	2
Christian	437	58	326	40	557	5
Clark	1082	132	664	56	997	128
Clay	121	114	90	890	216	777
Clinton	445	322	269	196	297	492
Cole	809	635	410	575	1250	502
Cooper	896	497	704	492	939	381
Crawford	322	382	170	295	297	307
Dade	57	1	417	15	507	4
Dallas	488	84	363	40	243	12
Daviess	795	345	564	43	775	286
DeKalb	382	193	221	90	400	197
Dent	145	96	52	37	107	1
Douglas	261	3	31	1	189	2
Dunklin	.....	120	.....	.....	.....	.....
Franklin	1387	907	847	838	1717	401
Gasconade	905	227	508	346	862	185
Gentry	597	345	326	97	525	281
Greene	1072	372	1059	208	2223	346
Grundy	839	102	645	43	933	17
Harrison	1077	279	820	185	1252	212
Henry	492	252	365	34	405	232
Hickory	398	10	282	49	365	1
Holt	784	31	517	50	673	81
Howard	200	960	265	750	534	6
Howell	61	16	.....	.....	.....	.....
Iron	200	105	182	172	535	2
Jackson	868	1004	428	694	602	557
Jasper	278	1	.....	.....	46	2

POLITICAL STATISTICS—*Continued.*

COUNTIES.	1866. Superintendent.		1865. New Constit'n.		1864. President.	
	Parker, Republican	Williams, Democrat.	For.	Against.	Lincoln, Union.	McClellan, Democrat.
Jefferson	771	771	452	489	915	323
Johnson	.....	.....	592	67	832	224
Knox	647	344	541	197	669	348
Laclede	271	272	258	119	659	50
Lafayette	502	651	295	846	346	305
Lawrence	484	182	317	156	833	.....
Lewis	789	555	560	530	774	533
Lincoln	480	483	409	367	542	357
Linn	754	444	594	213	907	135
Livingston	692	487	431	155	442	497
Macon	956	664	742	328	1757	23
Madison	169	157	71	303	240	14
Maries	.....	.....	81	332	215	244
Marion	882	640	646	547	823	375
McDonald	101	.....	29	1	26	.....
Mercer	941	12[illegible]	770	3[illegible]	1158	3
Miller	43[illegible]	3	460	[illegible]	565	111
Mississippi	.....	43[illegible]	22	334	108	257
Moniteau	708	47[illegible]	534	247	866	434
Monroe	163	24[illegible]	7[illegible]	926	1[illegible]8	597
Montgomery	575	29	372	159	530	225
Morgan	457	37[illegible]	282	77	348	264
New Madrid	.....	372	45	477	99	9
Newton	357	2[illegible]	11	13	212	1
Nodaway	734	99	380	285	829	9
Oregon	.....	.....	.....	.....	.....	.....
Ozark	.....	.....	.....	.....	38	.....
Osage	563	624	398	721	764	679
Pemiscot	.....	134	.....	122	.....	.....
Perry	[illegible]81	542	435	527	509	116
Pettis	694	490	253	334	879	396
Phelps	251	180	422	269	985	263
Pike	983	1245	638	1113	1143	930
Platte	653	781	410	821	496	882
Polk	695	190	644	106	870	5
Pulaski	121	164	50	15	105	28
Putnam	1101	33	938	15	1292	47
Ralls	216	277	191	235	292	194
Randolph	182	1168	96	817	484	327
Ray	585	522	350	403	531	798
Reynolds	.....	137	1	20	7	20
Ripley	.....	.....	.....	.....	.....	.....
St. Charles	1239	891	512	1133	1438	394
St. Clair	318	1[illegible]	125	.....	223	1
St. Francois	270	325	146	408	246	134
Ste. Genevieve	178	394	172	213	423	217
St. Louis	12,076	9231	5322	11,248	14,027	8882
Saline	41[illegible]	357	317	137	170	98
Schuyler	388	152	260	25	546	191
Scotland	655	549	404	162	612	533
Scott	259	236	131	142	155	186
Shannon	.....	.....	.....	.....	.....	.....
Shelby	475	200	282	164	366	216
Stoddard	117	147	130	105	111	6

POLITICAL STATISTICS—*Continued.*

COUNTIES.	1866. Superintendent.		1865. New Constit'n.		1864. President.	
	Parker, Republican.	Williams, Democrat.	For.	Against.	Lincoln, Union.	McClellan, Democrat.
Stone	103	89	25	103	100	.....
Sullivan	764	254	540	140	1074	52
Taney	103	8	.....	.....	29	.....
Texas	88	126	.....	.....	37	10
Vernon	46	189	11	106	.....	.....
Warren	655	273	451	280	948	271
Washington	296	575	167	699	788	239
Wayne	105	87	15	247	343	189
Webster	407	259	292	163	533	192
Worth	277	194	167	106	346	121
Wright	192	41	.....	.....	65	2
Soldiers' vote	.....	.....	3995	1168	.....	.....
Total	62,187	40,958	43,670	41,308	71,676	31,626

In 1866, total vote for Superintendent of Public Schools, 104,775; Parker over Williams, 20,859. In 1865, total vote on the new Constitution, so far as returned, 85,478; majority for new Constitution, 1,862. In 1864, whole vote for President, 103,302; Lincoln over McClellan, 40,050. In 1860. whole vote for President, 165,518; anti-Lincoln majority, 131,462.

THE CONGRESSIONAL VOTE.

The vote by congressional districts stands as follows:

District.	Radical.	Cons.	Majority.
First	6728	6510	218
Second	9564	6254	3310
Third	3571	4637	1066
Fourth	6083	1929	4154
Fifth	7617	4084	3533
Sixth	5391	4857	534
Seventh	10,942	3980	6962
Eighth	7601	6069	1532
Ninth	4876	4698	178
Total	62,373	43,018	21,487

LIST OF SENATORS AND REPRESENTATIVES

Of the Twenty-Fourth General Assembly, and Officers of the State Government for 1867.

STATE OFFICERS.

Names.	Office Held.	County From.	Postoffice.	Nativity.	Occupati'n
Thos. C. Fletcher	Governor	Jefferson	Jeff. City	Missouri	Lawyer.
George Smith	Lieutenant Governor	Caldwell	Mirable	Ohio	Farmer.
Francis Rodman	Secretary of State	Buchanan.	Jeff. City	Prussia	Editor.
A. Thompson	State Auditor	Nodaway	Jeff. City	Illinois	Farmer.
William Bishop	State Treasurer	Clark	Jeff. City	Virginia	Merchant.
Jared E. Smith	Register of Lands	Green	Jeff. City	Tennessee	Mechanic.
R. F. Wingate	Attorney General	St. Louis	Jeff. City	Kentucky	Lawyer.
T. A. Parker	Supt. Com. Schools	St. Charles	Jeff. City	Indiana	Minister.
N. C. Burch	Clerk Supreme Court	Cole	Jeff. City	New York	Lawyer.

SENATORS.

Names.	County From.	Postoffice.	Nativity.	Occupation.
Adams, Wm. B.	Montgomery	Danville	Missouri.	Physician.
Boardman, Geo. W.	Cooper	Boonville	Vermont	Real Est. Dealer
Bonham, D	Andrew	Empire Prairie	England	Farmer.
Bruere, Theodore	St. Charles	St. Charles	Prussia	Lawyer.
Burnes, D. D	Platte	Weston.	Indiana,	Merchant.
Cavender, John S.	St. Louis	St. Louis	New Hampshire	Banker.
Clark, J. B., Sr.	Dade	Dadeville	New Jersey	Coachmaker.
Conrad, David R.	Bollinger	Paton	N. Carolina	Farmer.
Deal, H. J.	Mississippi	Charleston.	Penn	Farmer.
Dodson, Isham B.	Adair	Kirksville.	Kentucky	Attorney.
Ellis, John H	Livingston	Chillicothe	Virginia	Physician.
Evans, Ellis G	Phelps.	Rolla.	Missouri.	Mechanic.
Elwell, Geo. W.	Harrison	Bethany	Ohio	Farmer.
Filler, John M	Lawrence.	Mt. Vernon	Virginia.	Farmer.
Fisher, H. J.	St. Louis	Carondelet	Penn	Freight Agent.
Gœbel, Gert	Franklin.	Newport	Germany	Clerk.
Graham, Minor T.	Jackson	Westport	New York	Wagonmaker.
Harbine, Thomas	Buchanan.	St. Joseph	Maryland	Lawyer.
Headlee, Samuel W.	Greene	Hickory Barrens	Tennessee	Farmer.
Hubbard, Paul	Boone	Columbia	New York	Physician.
Holland, W. S.	Benton	Warsaw.	Kentucky	Physician.
Human, W. C	Polk	Hermansville.	Illinois	Farmer.
King, Edward L.	Cole	Jefferson City	Missouri	Lawyer.
McCormick, James R.	Iron	Ironton	Missouri	Physician.
Morse, J H	Jefferson.	Morse's Mills	Mass	Farmer.
Rea, Geo. H.	St. Louis	St. Louis.	Mass	Leather Dealer.
Reed, Thos B	Randolph	Huntsville.	N. Carolina	Lawyer.
Ridgley, Stephen	St. Louis	St. Louis.	Mass	None.
Shelton, Wm. A.	Putnam	Unionville	Kentucky	Lawyer.
Spaunhorst, H. J.	St. Louis	St. Louis	Germany	Merchant.
Townsley, Chaun. P.	Pettis	Sedalia	Penn	Lawyer.
Williams, Eugene	Scotland	Memphis	Tennessee	Merchant.
Winters, J. R.	Marion	Palmyra	Penn	Editor.
Woerner, J. G.	St. Louis	St. Louis.	Wurtemburg	Lawyer.

OFFICERS OF SENATE.

Names.	Office Held.	County From.	Postoffice.	Nativity.	Occupation.
Bonham, D.	President pro tem.	Andrew.	Empire Prairie	England	Farmer.
Dyer, D. P.	Secretary of State.	Pike	Louisiana	Virginia	Lawyer.
Moser, G. A.	Assistant Secretary	Iron	Ironton	Penn	Printer.
Koch, Louis F.	Enrolling Clerk.	Lewis	LaGrange	Germany	Merchant.
Porter, David H.	Engrossing Clerk.	Jackson	Independence	Kentucky	Lawyer.
Miller, Frederick	Doorkeeper	Cole	Jefferson City.	Penn	Carpenter.
Smith, S. W.	Sergeant at Arms.	Benton	Warsaw	New York.	Editor.
Bratton, T. B.	Chaplain	Ray	Richmond	Indiana	Minister.

REPRESENTATIVES.

Names.	County From.	Postoffice.	Nativity.	Occupation.
Alley, John	Oregon.	Alton.	Missouri.	Farmer.
Alexander, J. P.	Jackson.	Independence	Kentucky	Farmer.
Akard, J. J.	Polk.	Bolivar	Missouri	Farmer.
Applegate, H. A.	Dunklin.	New Madrid	New Jersey	Merchant.
Beal, Wm. M.	Knox.	Sand Hill	Ohio.	Farmer.
Bennett, W.	Buchanan	St. Joseph	Ohio.	Farmer.
Betz, A. L.	Bates	Johnstown.	Virginia	Physician.
Birch, Samuel W.	Scotland	Memphis	Pennsylvania	Lawyer.
Blodgett, Wells H.	Johnson.	Warrensburg.	Illinois.	Lawyer.
Boon, J. W.	Barry.	Cassville.	Virginia	Farmer.
Baldwin, J. W.	Butler.	Poplar Bluffs.	Kentucky	Miller.
Branscomb, C. H.	St. Louis.	St. Louis.	N. Hampshire	Lawyer.
Bogy, Jos.	St. Genevieve.	St. Mary's.	Arkansas	Farmer.
Britten, R.	Madison.	Fredericktown.	Tennessee.	Tanner.
Brock, Robt. T.	St. Louis.	St. Louis.	Illinois	Clerk.
Brown, E. D.	Dallas.	Louisburgh.	Indiana.	Merchant.
Brown, J. A.	Daviess.	Gallatin.	Ohio	Farmer.
Buzick, Ira C.	Holt.	Oregon	Ohio	Lawyer.
Burch, E. M.	Jasper.	Carthage.	New York.	Farmer.
Cannon, S. D.	Lincoln.	Hawkpoint	Missouri.	Farmer.
Cartmel, R. T.	Barton.	Lamar.	Kentucky	Farmer.
Caldwell, David L.	Pike.	Bowling Green.	Missouri.	Lawyer.
Childress, R. L.	Webster.	Marshfield	Tennessee.	Farmer.
Colman, Norman J.	St. Louis.	St. Louis	New York	Farmer.
Cole, George B.	Washington.	Potosi	Virginia	Farmer.
Cockerill, H. Clay	Howard.	Glasgow.	Missouri.	Lawyer.
Cosgrove, John	Benton.	Cross Timbers.	Ireland	Farmer.
Dallmeyer, W. Q.	Gasconade.	Cooper Hill	Germany.	Merchant.
DeLand, S. B.	Livingston.	Bedford.	Massachusetts.	Farmer.
Downey, Samuel	Harrison.	Akron.	Kentucky	Farmer.
Drum, John	Cape Girardeau	Appleton.	N. Carolina.	Farmer.
Drummond, H. J.	Marion	Palmyra	Virginia	Attorney.
Eagle, T. A.	Macon.	Macon	Ohio	Physician.
Ellis, John B.	Pulaski.	Waynesville	Tennessee	Farmer.
Ellison, A. M.	Douglas.	Cowskin.	Indiana.	Farmer.
Eppstein, Jos. A.	Cooper	Boonville	Germany	Merchant.
Estep, Jacob	Clinton	Cameron.	Maryland.	Farmer.
Ewing, J. A.	Shelby.	Shelbyville.	Illinois	Farmer.
Eubanks, A. C.	Sullivan	Milan	Ohio	Attorney.
Farrar, Reuben H.	Franklin.	St. Clair.	Missouri.	Farmer.
Ferrell, E. P.	Phelps.	Rolla.	Indiana	Farmer.
Fletcher, Chas. C.	Jefferson.	De Soto.	Missouri.	Merchant.
Fox, Jas. C.	Monroe.	Paris	Kentucky	Merchant.
Forgey, Thomas J.	Pike	Paynesville	Missouri.	Farmer.
Freeman, J. B.	Grundy.	Alpha	Ohio	Physician.
Griffin, Albert	Chariton.	Brunswick.	New York	Merchant.
Goodson, J. M.	Carroll	Carrollton	Kentucky	Farmer.

REPRESENTATIVES—*Continued.*

Names.	County From.	Postoffice.	Nativity.	Occupation.
Hackleman, Thos. S.	Cedar.	Stockton.	Indiana.	Farmer.
Hargrove, S. M.	Newton	Granby	Kentucky	Farmer.
Hathaway, Seth W.	Schuyler	Lancaster.	Ohio	Farmer.
Harper, Jas. B.	Putnam.	St. John.	Ohio	Farmer.
Hewitt, G. L.	Marion	Hannibal	New York	Physician.
Hickman, Martin	Worth.	Smithtor.	Virginia	Minister.
Howe, Charlton H.	Lewis.	LaGrange	Kentucky	Printer.
Howell, Gideon	Reynolds	Centreville.	Tennessee	Lawyer.
Howard, Charles W.	Lafayette.	Concordia	England	Minister.
Hoskinson, J. M.	Caldwell.	Kingston	Ohio	Attorney.
Huff, W. D	St. Francois	Iron Mountain	Vermont.	Clerk.
Huhn, Henry	Franklin.	Washington.	Bavaria	Editor.
Hornbeak, John	Christian	Kenton	Tennessee.	Farmer.
Jaquith, P. H.	Iron	Pilot Knob.	New York	Merchant.
Jewett, D. T.	St. Louis.	St. Louis	Maine.	Lawyer.
Jerome, W. L	Mercer	Modena	New York	Farmer.
Jennings, Jesse	Taney	Forsyth	Tennessee.	Farmer.
Jones, Wm. A	Nodaway	Hallsas Ferry	Ohio	Farmer.
Key, William	Crawford	Cherryville	Kentucky.	Farmer.
Kidwell, Wm	Hickory.	Cross Timbers	Tennessee.	Farmer.
Kuhl, C. A	Warren.	Warrenton	Illinois	Merchant.
Laughlin, M. L	Saline	Brownsville.	Ohio	Farmer.
Lawson, W	Carter.	Cane Creek	Pennsylvania	Farmer.
Legg, John R.	Moniteau	High Point.	Tennessee	Farmer.
Leaming, Rush G	Cass	Pleasant Hill.	Indiana.	Lawyer.
Ledergerber, Fred. T.	St. Louis	St. Louis	Illinois	Lawyer.
Linder, A H	Adair.	Kirkville.	Kentucky	Farmer.
Lyman, Rollin	Boone.	Rocheport	Vermont.	Farmer.
Long, Chas	Jackson	Kansas City	Missouri	Merchant.
Martin, M. C	Ozark	Vera Cruz	Kentucky.	Farmer.
McBride, James J	St. Louis	St. Louis	Ireland	Lawyer.
McElhinney, Alexander	St. Louis	Manchester	Pennsylvania	Farmer.
McGinnis, J. C.	St. Louis	St. Louis	Kentucky.	Lawyer.
McMurtry, James S.	Wayne.	Col Water	Tennessee.	Farmer.
McMillan, Robert	Clay	Smithville.	Kentucky	Farmer.
Mitchell, G. W. L.	Camden	Limerick	Kentucky	Farmer.
Monks, Wm	Howell	West Plains.	Alabama	Farmer.
Mullins, A. W.	Linn	Linneus	Kentucky	Lawyer.
Mullings, H. G.	Greene	Ebenezer	Missouri.	Farmer.
Nevill, Carroll	Miller.	Pleasant Mount	Kentucky	Minister.
O'Dell, James V.	Stoddard.	Bloomfield.	Kentucky	Lawyer.
Orrick, Jno C.	St. Charles	St. Charles	Missouri.	Lawyer.
Payne, O. B.	Clark.	Eldorado	Kentucky	Physician.
Pyle, W. K	Dade	Dadeville	Missouri.	Merchant.
Quinn, Thomas	Platte.	Weston	Virginia	Farmer.
Requa, J. H.	Vernon	Nevada City	New York	Farmer.
Rice, H. W	Gentry	Albany	Kentucky	Collector.
Rinker, Geo. W	Lawrence.	Mt. Vernon	Indiana.	Farmer.
Ritchie, B. P.	Audrain.	Sturgeon.	Kentucky	Farmer.
Riggs, William W	De Kalb.	Victoria	Missouri.	Farmer.
Rollins, James S.	Boone	Columbia	Kentucky	Lawyer.
Rountree, L. A	Green,	Springfield	N. Carolina	Farmer.
Robertson, John P	Wright	Hartville.	Missouri	Farmer.
Ryland, John F	Lafayette	Lexington	Virginia	Lawyer.
Shafer, William	Henry	Leesville.	New York	Farmer.
Schulenburg, Louis	St. Louis	St. Louis.	Hanover	Merchant.
Shields, John S.	Laclede,	Lebanon	Tennessee.	Farmer.
Schneider, Charles F.	Perry.	Appleton	Germany	Farmer.
Scott, John T.	New Madrid	New Madrid	Kentucky	Lawyer.
Silman, B. F.	Scott	Commerce.	Indiana.	Farmer.
Smelser, P. W	Ripley	Gatewood.	Kentucky	Farmer.
Smythe, C. R.	St. Louis.	St. Louis	Ireland.	Physician.
Smith, Reuben	Bollinger	Patton.	N. Carolina	Farmer.
Stafford, P. G	Pettis.	Sedalia	Illinois	Real Est. Agent

REPRESENTATIVES—*Continued.*

Names.	County From.	Postoffice.	Nativity.	Occupation.
Steele, David K	Cooper	Syracuse	Missouri	Farmer.
Sutton, Valentine	Texas	Huston	Kentucky	Farmer.
Taylor, E	Morgan	Excelsior	Tennessee	Farmer.
Thompson, L. A	Montgomery	Danville	Missouri	Lawyer.
Valle, A	St. Louis	St. Louis	Missouri	Real Est. Agent
Van Wagoner, G. S	St. Louis	St. Louis	New Jersey	Lawyer.
Waide, Robert	Mississippi	Charleston	Virginia	Lawyer.
Walker, C. B	McDonald	Pineville	Tennessee	Farmer.
Waters, B. J	Ray	Richmond	New York	Lawyer.
Weinrich, Conrad	St. Charles	New Melle	Germany	Blacksmith.
White, Frank	Cole	Jefferson City	New York	Lawyer.
White, Thomas P	Randolph	Allen	Kentucky	Farmer.
Whitaker, John	St. Clair	Osceola	Ohio	Teacher.
Williams, W. P	Dent	Dent Ct. House	Virginia	Merchant.
Wellman, H. C	Ralls	New London	Ohio	Lawyer.
Wilkinson, Chas. B	Buchanan	St. Joseph	New York	Editor.
Wolf, H. J	Platte	Weston	Pennsylvania	Lawyer.
Wolbrecht, Geo	St. Louis	St. Louis	Germany	Restaurant.
Wyatt, A. E	Atchison	Rockport	Indiana	Mechanic.
Zevely, L	Osage	Linn	Missouri	Editor.

OFFICERS OF HOUSE OF REPRESENTATIVES.

Names.	Office Held.	County From.	Postoffice.	Nativity.	Occupation.
Harlan, A. J	Speaker	Andrew.	Savannah	Ohio	Lawyer.
Finkelnburg, G. A	Speaker pro tem	St. Louis	St. Louis	Prussia	Lawyer.
Doane, N. T	Chief Clerk	Grundy	Trenton	Ohio	Editor.
Colby, J. C. S	Assistant Clerk	Greene	Springfield	New York	Lawyer.
Stewart, D. M. V	Enrolling Clerk	St. Louis	St. Louis	Scotland	Lawyer.
Schierenberg, E	Engrossing Clerk	Cole	Jefferson City	Germany	Editor.
Buehrle, Fred	Doorkeeper	Cole	Jefferson City	Baden	Gardener.
McGinnis, F	Sergeant at Arms	Linn	St. Catharine	Kentucky	R.R.Contractor
Whitaker, J. A	Chaplain				

Nativities and occupations of the Officers of the State Government and the Members of the Senate and House of Representatives:

Governor	Missouri	Lawyer.
Lieut. Governor	Ohio	Farmer.
Secretary of State	Prussia	Editor.
State Auditor	Illinois	Farmer.
State Treasurer	Virginia	Merchant.
Register of Lands	Tennessee	Mechanic.
Attorney General	Kentucky	Lawyer.
Superintendent of Common Schools	Indiana	Minister.
Clerk of Supreme Court	New York	Lawyer.

SUMMARY.

Occupations—Lawyers, 3; Farmers, 2; Editor, 1; Merchant, 1; Mechanic, 1; Minister, 1.

Nativities—Missouri, 1; Ohio, 1; Prussia, 1; Illinois, 1; Virginia, 1; Tennessee, 1; Kentucky, 1; Indiana, 1; New York, 1.

MEMBERS OF THE SENATE.

Occupations—Physicians, 5; Farmers, 8; Real Estate Agents, 1; Lawyers, 8; Banker, 1; Merchants, 4; Mechanics, 3; Freight Agent, 1; Clerk, 1; None, 1; Editor, 1.

MEMBERS OF THE HOUSE OF REPRESENTATIVES.

Nativities—Missouri, 18; Kentucky, 24; New Jersey, 2; Ohio, 14; Virginia, 9; Pennsylvania, 4; Illinois, 6; New Hampshire, 1; Arkansas, 1; Tennessee, 12; Maine, 1; Indiana, 8; New York, 10; Massachusetts, 1; North Carolina, 3; Maryland, 1; Vermont, 2; Alabama, 1; Hanover, 1; Bavaria, 1; England, 1; Germany, 5; Ireland, 3.

Occupations—Farmers, 67; Merchants, 13; Lawyers, 27; Physicians, 5; Miller, 1; Tanner, 1; Clerks, 2; Ministers, 2; Collector, 1; Real Estate Agents, 2; Blacksmith, 1; Teacher, 1; Editors, 3; Keeper of Restaurant, 1; Mechanic, 1; Printer, 1.

POPULAR VOTE FOR PRESIDENT IN MISSOURI.

1864.	
Lincoln (Union)	72,750
McClellan (Democrat)	31,678
Union majority	41,072
1860.	
Lincoln (Republican)	17,028
Douglas (Democrat)	58,801
Breckinridge (Democrat)	31,317
Bell (Union)	58,372
1856.	
Fremont (Republican)	
Buchanan (Democrat)	58,164
Fillmore (American)	48,524

THE STATE LIBRARY.

By an act passed last winter, a new library was required to be fitted up in the west wing of the capitol, on the same floor with the legislative chamber. The work has just been completed, and the finishing touches are being given to the arrangements. The room is a very attractive one, excellently lighted, and by its semi-circular form well adapted for a handsome and convenient disposition of the alcoves; of these there are about thirty, a portion of them in a tastefully designed gallery, reached by easy stairs. The hall is luxuriously carpeted and otherwise furnished, and at present seems quite a favorite resort of the Senate committees. The law library is composed as follows:

British and American reports	4,286 vols.
Congressional and State	4,863 "
Miscellaneous	1,083 "
Total	10,183 vols.

The work of fitting up and storing this hall has been executed in accordance with the design, and under the supervision of N. C. Burch, Esq., Clerk of the Supreme Court and State Librarian ex-officio. The results are in all respects commendable as most credible to his judgment and taste. "The miscellaneous" feature of the law library is due to him, and presents a very happy selection of standard literary treasures. The entire collection is at least the important and excellent beginning of a State Library, which at some future day may require a magnificent building to accommodate its volumes.

Counties.	Murder		Robbery.		Horse stealing.		Selling liquor without license.		Burglary.		Grand larceny.		Arson.		Gambling.		Petit larceny.		Perjury.		Various crimes.		Indicted, total.	Convicted, total.	Naturalizations, Inquests, etc., during the year 1866.								
	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.	Indicted.	Convicted.			No. and nationalities of foreign persons naturalized. England.	Ireland.	Prussia.	Germany.	Total.	No. of civil suits entered on the docket.	No. of judgments.	Inquests and Causes of Death.	No. of Paupers.
Barton	9	..	12	..	..	..	..	..	..	..	9	..	3	..	..	..	..	..	4	..	1	..	38	....	..	..	..	..	....	114	21	1 Shot by persons unknown.	1
Bates	2	..	1	..	..	..	..	2	..	..	3	..	..	..	..	..	..	..	..	..	15	..	....	....	..	..	..	..	....	276	50	1 Unknown	..
Caldwell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	39	25	41	..	3	..	3	6	25	20	1 Unknown	3
Cedar	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	..	12	2	..	..	..	..	....	200	120		7
Dallas	..	..	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	..	..	..	2	10	2	..	..	..	..	....	50	26	1	..
Gasconade	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	..	....	....	..	2	..	29	31	34	15	1 Murder, 2 suicides	3
Montgomery	3	..	4	..	..	..	25	..	1	..	6	..	4	..	2	..	..	..	4	..	..	21	60	14	2	..	1	..	....	220	100		..
New Madrid	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	....	..	..	..	..	15	142	....		9
Perry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	5	....	....	..	..	..	..	....	50	20	2 Floaters	8
St. Clair†	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	....	..	..	..	..	....	....	....		1
Wayne	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41	..	....	....	1	..	1	..	2	103	36	2 Unknown	..
Knox	3	..	1	..	..	..	5	10	..	..	14	2	..	..	..	..	1	2	1	..	39	12	60	20	1	..	..	4	....	....	....	1 Unknown, 1 suicide	10
Polk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	9	..	..	..	..	1	180	108	None	4
Dade	16	..	57	..	..	..	..	..	..	..	6	..	31	..	..	..	..	..	..	..	28	..	139	17	..	..	..	..	....	173	90	1 Unknown	1
Mississippi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	....	..	..	..	..	....	278	53	2 Unknown	3
Audrain	..	..	2	..	..	..	..	..	..	..	4	..	..	..	3	..	..	..	35	..	15	..	59	14	..	..	..	..	....	146	138		5
St. Louis*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	....	..	..	..	..	....	....	....		..

*The statistics of this county have not been received from the Clerks of the Courts, though repeated applications have been made for them.
†Court dockets destroyed by fire.

Counties.	Value of tax levied, (aggregate.)	Amount for Military Purposes.	Total value of personal property.	Value of Moneys.	Value of Credits.	No. of New Structures.	Value of New Structures.	Acres of Land.	Value of Lands.	Remarks.
Barton	$6816 46	$3247 94	$2930	$3875		500	$250,000			On the 1st of August, 1865, there were not more than six voters in this county.
Bates	16,057 00	*5590 39	19,064	8160				584,920	$ 1,543,475	*County purposes.
Bollinger	12,891 12	3950 00	162,955	34,035						
Caldwell	5983 24	8001 04	279,090	74,545						This report is from the tax book of 1866.
Cedar	9200 00	3460 00	98,000	54,000						
Gasconade	31,471 71	16,155 65	540,129	110,532	*					*Included in value of moneys.
Lafayette			1,976,157						4,672,985	
Lewis	70,754 24	23,586 70	1,309,095	329,305						
Perry	23,484 62	11,480 62	189,620	221,070	*	89	100,000			*Included in value of moneys.
Howard	66,734 95	41,234 00	572,250	715,425	*					*Included in value of moneys.
St. Clair	32,000 00	838 84	150,662	2,004,910	$ 25,000	200	10,000			
Moniteau	*	*	54,065	213,571					1,824,653	*Levy not made for 1866.
Franklin			460,281					*503,356	*3,677,603	*Assessed
Holt			904,965						1,619,121	
Sullivan	21,288 47	7088 14								Other personal property $235,276; total valuation of taxable property, $2,230,534; number of polls, 1310.
Scotland	29,458 61		427,125	152,655	*					*Included in value of moneys.
Pettis			564,379	76,800	*					*Included in value of personal property.
Carter			13,359	200	5000	1	50			
Polk			701,082							
St. Louis	1,965,808 11½	509,676 70	26,098,735	3,780,230	9,646,325	1002	1,758,945			
Mississippi	21,155 91	14,016 49								
Cooper	63,411 48	23,788 82	1,027,807	469,460	*					
Andrain	52,155 39	18,803 60	811,136	239,822		200	300,000			*Included in moneys.
Dade	17,009 09	6813 63	296,765	*131,967						*Including bonds, notes, etc.

AGRICULTURE—CENSUS STATISTICS 1850 AND 1860.

Acreage of Land Allotted into Farms, and the Value Thereof, and of Agricultural Implements and Machinery.

Years.	Improved.	Unimproved.	Total Acres.	Value of Farms.	Implements, etc.
1850	2,938,425	6,794,245	9,732,670	$ 63,225,543 00	$3,981,525 00
1860	6,646,871	13,737,938	19,984,809	230,632,126 00	8,711,508 00

Live Stock Owned in the State.

Years.	Horses.	Asses & Mules.	Milch Cows.	Work Oxen.	Other Cattle.	Sheep.	Swine.
1850	225,319	41,667	230,169	112,168	449,173	762,511	1,702,625
1860	361,874	80,941	345,243	166,588	657,153	937,443	2,354,425

—Valued in 1850 at $19,887,580, and in 1860, $53,698,673.

Products of Animals, including Wax and Honey.

Years.	Butter, lbs.	Cheese, lbs.	Wool, lbs.	Animals Slaughtered.	Wax & Honey, lbs.
1850	7,834,259	203,572	1,827,164	3,367,166	1,228,972
1860	12,704,837	259,633	2,060,278	9,844,449	1,665,173

Cereal Crops, in Bushels.

Years.	Wheat.	Rye.	Indian Corn.	Oats.	Barley.	Buckwheat.
1850	2,961,632	44,268	36,214,527	5,278,079	9,631	23,641
1860	4,227,586	293,262	72,892,157	3,680,870	229,502	182,292

Commercial Crops.

Years.	Rice, lbs.	Tobacco, lbs	Cotton, bal's	Hops, lbs.	Hemp, tons.	Flax, lbs.	Molasses, gall's.
1850	700	17,113,784	....	4,130	16,028	627,160	5,636
1860	9,767	25,066,195	100	2,265	19,268	109,837	22,305

Miscellaneous Crops.

Crops.	1850.	1860.
Peas and beans, bushels	46,017	107,999
Irish potatoes, bushels	,939,006	1,990,850
Sweet potatoes, bushels	335,505	335,102
Wine, gallons	10,563	27,827
Hay, tons	116,925	441,070
Clover-seed, bushels	619	2,216
Grass-seed, bushels	4,346	55,713
Flax-seed, bushels	13,696	4,656
Maple sugar, pounds	178,910	142,430
Maple molasses, gallons	.....	18,289
Sorghum molasses, gallons	.....	776,101
Silk cocoons, pounds	186	127

—And in value for the same years: Orchard products, $514,711 and $810,975; products of market gardens, $99,454 and $346,405; and home manufactures, $1,674,705 and $1,984,202.

GENERAL INDUSTRY—CENSUS RETURNS FOR 1850 AND 1860.

Aggregate Statement of Capital, Material, Hands and Products.

Years.	Number of Establishm'ts.	Capital invested.	Value of raw material	Employed—Males.	Employed—Females.	Value of Products.
1850	2,923	$ 8,576,697	$12,198,354	14,880	928	$24,324,418
1860	2,805	20,500,000	24,000,000	20,130	1,200	43,500,000

GENERAL CONDITION OF AGRICULTURE.

The following tables are compiled from the county reports made to the Secretary of the Board of Agriculture. They represent the general condition of agriculture, without reference to any particular year.

We are necessarily obliged to depend upon the "opinions" of our various correspondents, and sometimes there is a discrepancy between the judgment of persons in the same county as to what may be considered the average of crops. The variation, however, is not much.

As to the face of the county, quality of the soil, etc., the descriptions are apt to be a little colored by prejudice in favor of home, but on the whole, as we know from personal observation, the returns are generally correct.

Missouri, though not the newest State in the Union, is one of the newest in genuine progress. The first settlers were not an enterprising people; the original French and Spanish were a quiet, happy-minded people who loved home and disliked speculating. Those from the Southern States believed in treading in "the footsteps of their illustrious predecessors." Of course none of these classes would be likely to develop the resources of a State.

Circumstances arising from the events of the last five years are changing the character of the population and in a measure the population itself. Many of the old inhabitants, especially in the agricultural districts, who cannot accommodate themselves to the new system of things, are emigrating, and their places are being filled by their descendants or new immigrants to the country. In a few years there will be a great change in the agricultural condition of Missouri.

The following tables will form a good basis for estimating our progress. If, in a few years, it shall be found that the average of our crops is gradually increasing, this increase must be ascribed to better cultivation; but if on the contrary the average does not grow, but decreases, this result must be charged to bad cultivation, for it cannot be said that any considerable portion of the land in the State is exhausted or even depreciated.

We often receive reports like this: "Average among the best farmers — bushels, but for the county — bushels;" usually about one-third less than among the "best farmers." If in future years we shall have the happiness to see the general average come up to that of our present "best farmers," it will denote better than anything else the increase in wealth and generally improved condition of the people; for wherever the farming interest flourishes every other kind of business is sure to be prosperous.

We commend these tables to the particular attention of farmers. If preserved they will serve perhaps to stimulate to greater exertions in their efforts to bring their own crops up to the highest standard:

GENERAL CONDITION OF AGRICULTURE.

FIRST SERIES.

Counties and Reporters.	Grain, Crops, etc.	Remarks.
Audrain ..... O. A. A. Gardiner	Wheat, average crop fifteen bushels per acre; corn fifty bushels; rye, oats and buckwheat not reported.	Face of the country lies on the "divide" between the Mississippi and Missouri rivers; consists mostly of dry rolling prairie; timber in belts along the banks of streams.
Bates..... B. H. Thornton.	Wheat, average crop fifteen to twenty bushels: no report for this year; corn, average crop fifty bushels; rye, oats, barley and buckwheat, not much cultivated.	Face of the country mostly prairie; timber in belts along the streams.
Callaway..... H. Burt.	Wheat, not much cultivated, average yield ten to fifteen bushels; corn, fifty; rye, twenty bushels, not much cultivated; buckwheat, little grown; oats largely, average, twenty bushels.	Face of the country about one-third prairie; plenty of timber; not very well watered.
Cape Girardeau H. H. M. Williams	Wheat is a leading crop, average fifteen bushels; corn, about fifty-five bushels; rye, but little grown; buckwheat, barley, oats, average about thirty-five bushels.	Situated on the Mississippi river; face of the country hilly and swampy; well watered; one of the oldest counties in the State
Cass..... G. C. Broadhead.	Wheat, fifteen to twenty bushels to the acre; corn, thirty to sixty bushels; rye, oats and buckwheat, no report.	Face of the country rolling and gently undulating; a fine stock-raising county.
Clark..... J. T. Caldwell.	Fall wheat almost a failure, winter killed, spring wheat an average crop.	Face of the country rolling prairie, well watered; soil good.
DeKalb ..... A. M. Chesmon.	Wheat, average crop twenty-five bushels; corn, from thirty to sixty bushels; corn is the principal crop.	Face of the country high, rolling prairie; soil good, well watered.
Franklin.....	Report not complete.....	Face of the country mountainous; soil good for pasturage, well watered; one-third prairie; timber plenty.
Greene..... M. J. Hubble.	Wheat, about 130,000 bushels raised last year; corn, 1,000,000 bushels; barley and buckwheat raised to a small extent, yielding about twenty bushels to the acre.	
Grundy.....	Wheat, average crop, six bushels; corn, thirty-five bushels; oats twenty-five to thirty bushels; rye, very little raised, but is considered a sure crop; barley, none raised; buckwheat, very little.	Face of the country divided into two parts; high, rolling prairie, and intervals along the rivers.
Hickory ..... R. B. Runyan.	Wheat, average crop twenty bushels; corn, forty bushels; oats, twenty bushels; barley and rye, not reported.	Face of the country hilly; soil limestone, with clay subsoil; well watered.

GENERAL CONDITION OF AGRICULTURE—CONTINUED.

Counties and Reporters.	Grain, Crops, etc.	Remarks.
Jefferson.... .... W. S. Jewett.	Wheat, average crop twelve bushels, not much grown; corn, twenty-five bushels; rye, grown only for pasturage; oats and barley, not reported.	Face of country rough; soil various; chiefly a mining county.
Johnson..... .. B. Hornsby.	Wheat, this year, a little less than an average; other crops not reported.	Face of the country mostly rolling prairie, fine for stock growing as well as cultivation.
Holt..... ..... G. Meyer.	Wheat, average crop 15 bushels.	Face of the country diversified and undulating; bottoms along the rivers level, soil good, well watered.
Knox..... W. M. Beal.	Wheat is not much cultivated; corn does well when well cultivated; average crop 30 bushels, with good cultivation 50 bushels.	Face of the country rolling prairie, with belts of timber along the streams; well watered.
Lafayette..... W. W. Gaunt.	Wheat, average crop 30 bushels; crop of '65 uncommonly good; often 40 bushels to the acre; corn always yields large crops; rye, oats, barley, also.	Face of the country mostly prairie; soil rich, well watered; timber along the streams.
Livingston..... J. H. Drake.	Wheat, average crop 20 bushels; oats is a favorite crop, average 40 bushels; corn the same; rye about 30 bushels; buckwheat 40 bushels.	Face of the country mostly rolling prairie; timber along the streams; well watered.
Franklin.. . . . D. W. Whitney.	Wheat, average crop 10 bushels, fine quality; corn, average 35 bushels; oats grow well; rye, buckwheat and potatoes raised in small quantities; barley only to supply local business; sorghum for domestic use.	Face of the country hilly, clay soil on the hills; along the bottoms rich, loamy soil; well timbered and plenty of springs; hard water.
New Madrid.... T. L. Fontaine.	Wheat, three-quarters an average crop; corn do.; not much wheat raised for want of mills; oats not much raised; no flax, hemp nor tobacco; castor beans first raised this year.	Face of the country level; soil black, sandy loam, very fertile.
Platte	Wheat, average crop 20 bushels; corn 40, oats 30, rye 40, barley 40, potatoes 80, tobacco 18 lbs.; sorghum cultivated only for home consumption.	Face of the country rolling; soil rich, well adapted to the raising of grain; timber along the banks of streams; good stone for building; not much coal.
Oregon..... ... J. H. Woodside.	Wheat, average crop 15 bushels; corn 40; oats 30; rye not much cultivated.	Face of the country uneven and broken, with good soil in the valleys; well timbered and good water.
Osage..... .... L. Philbert.	Wheat, average crop 15 bushels; corn 40; rye is very little cultivated, mostly for winter pasturage; oats yield about 39 bushels.	Face of the country broken; well timbered in the northern part; in the southern only along the rivers.
Shelby..... .. T. Butterworth.	Wheat is not much raised; corn is the principal crop; rye little raised; oats less than in former years.	Face of the country agreeably diversified; timber and prairie in about equal quantities.

GENERAL CONDITION OF AGRICULTURE—CONTINUED.

Counties and Reporters.	Grain, Crops, etc.	Remarks.
Scott..... R. B. Wade.	Wheat, average 10 bushels; corn 33 bushels; rye is sown chiefly for pasturage; oats and barley average 30 bushels.	Face of the country high and rolling; well watered and heavily timbered.
Vernon..... A. Badger.	Wheat, average 20 bushels; corn 40; rye, oats and buckwheat grow well when cultivated.	Face of the country high, rolling prairie, with timber along the streams; well watered; well adapted to sheep raising.
Webster..... R.J. Bodenhamer	Wheat, average crop 15 bushels; corn and oats about 40 bushels.	Face of the country hilly; rich valleys along the streams; well watered.
Jackson..... B. D. Dawson.	Wheat, average crop 30 bushels; corn 50; and all small grains produce well when cultivated.	Face of the country high, rolling prairie; timbered along the streams.

PRESENT GENERAL CONDITION OF AGRICULTURE.

The reports received from the different counties represent the condition of agriculture in Missouri as rapidly improving. Since the war many of the farmers who were driven abroad, are returning home, and profiting by the lessons they learned in their exile. A general spirit of improvement seems to pervade every community. The old, dull routine of crops (which was frequently from corn to corn again), cultivated in the same primitive way, with the least possible care or thought, and followed by the sheer force of habit, without direction except that which is derived from looking backward instead of forward, is beginning to yield to the march of improvement. Intellect is awakening; the farmer is beginning to use his mind as well as his hands.

The shock was rude and the teaching rough, but war, like everything else, is not without its benefits. It has taught many a one who before "was wise in his own conceit" that there are at least two sides to every question, and one who knew the condition of society before, and has traveled over the State since the war, must remark the improvement in the tone of society, the greater liberality of thought and better disposition to learn, more inclination to depend upon themselves for their position, and less upon the greatness of their ancestors. The lesson was severe, but it was salutary.

The sparseness of the population in many parts of the State forbids that progress in scientific agriculture which is being made in some of the more densely settled States. But it is a favorable sign when new ideas are listened to, and prejudice is giving way to conviction. Agricultural and horticultural societies are among the most active means of arousing thought and stimulating enterprise. These societies are of much greater benefit than a superficial glance reveals; they strike at the foundation of the old inertia and indifference; they bring out the people, make them see and compare old ways and things with new, induce the farmer to try new plans. And if these have no other result, they make the farmer think, and this is a great point gained, for once the farmer begins to think he is in a fair way toward improvement.

The scantiness of the population, and the difficulty of obtaining laborers is so great, the land so rich and cheap, that many of the details of scientific farming cannot be carried out. It is of no use to tell a farmer who has as much land as he wants, lying ready to his hand, requiring only the cheapest cultivation to produce the most bountiful crops, that draining, subsoiling and manuring will bring bigger crops. He cannot get the labor requisite for such cultivation. But many things which are now entirely neglected, might just as well be done; as, for example, plowing in green crops, devoting more land to meadows, preparing more and better hay for winter, providing better shelter for stock, etc. More care, even with less labor, would materially increase the net proceeds.

In St. Louis and adjoining counties agriculture and horticulture are making rapid strides toward perfection. Fruit raising is receiving the most marked attention, and if the same interest that is exhibited now is continued for a few years longer, the fruit market of St. Louis will compare favorably with any in the United States. Many years have been spent in experimenting with different varieties of grapes and other fruit, and by the zealous and scientific studies and trials of a few individuals the best kinds for this soil and climate are now well understood, and their cultivation practiced on the most correct principles. Many other fruits, which a few years ago it was supposed would never succeed well here, are now grown in the greatest abundance. The peach is still uncertain, and seems to be growing more so if we may believe some of the oldest inhabitants. No cause for this has as yet been found out. In the southern part of the State the peach still flourishes. Apples grow well, but in the vicinity of St. Louis the moth is beginning to render them rather an uncertain crop. The southwestern part of the State is as yet free from insects which injure fruit; even the curculio has not yet reached there. This portion of the State is undoubtedly a fine fruit growing region. Here the grape will undoubtedly be produced in the greatest perfection, as soon as the country is sufficiently settled to give encouragement to its cultivation.

The introduction of new plants is exercising a beneficial influence upon agriculture. Of these none seems to have been more thoroughly successful than the sorghum, or Chinese sugar cane. It seems to have met a want in the new settlements which from their great distance from market was being severely felt. In traveling through the country one is struck with the great number of mills for grinding the cane. Generally the whole process of making the sirup is carried on upon the same farm where the cane is raised. Sometimes a very good quaulity of sirup is thus made, but oftener it is very inferior.

A large part of the State is devoted to stock raising, because, for the want of easy transportation to market, grain will not pay to raise. In many counties the entire value of the grain would be absorbed in carrying it to market. Before the war a good deal of attention was given to the improvement of cattle. Some farmers in the older counties along the Missouri river had been to much trouble and expense in procuring the blooded Durhams and other choice breeds. Much of the State must for a long time continue to be a stock growing country.

Before the war immense droves of horses and mules were sent from the western counties of the State to the St. Louis market; but by plunder and purchase this part of the State was stripped of all its most valuable animals. In many of the oldest and richest counties lying along the Missouri river corn, hemp and tobacco have for a long time been the staple productions. Corn always yields a bountiful crop. Hemp grows in the greatest perfection, and it only needs to be properly prepared to bring as good prices as any in the world. The United States Government has discriminated in its favor for naval use, and much other encouragement has been given to stimulate the production of a good article; but the amount of labor involved is so great that hitherto the supply has not kept pace with the demand. As yet no machine has been invented that seems to take the place of hand labor in dressing hemp. Until some inventive genius does for the hemp what Whitney did for the cotton crop we cannot expect great increase in its cultivation. Our rich alluvial bottoms have long been famous for the quantity of tobacco which grew upon an acre, and of late years the quantity has been rapidly improving; but whether a greater amount of money and labor invested in this filthy crop would be a benefit to the State admits of serious doubt.

Much of the finest land is still held by non-residents, who contribute nothing to the welfare of the State except their proportion of taxes. Many of those who were driven off by the war have not and many will not return; so that at present no comparison of the amount of improved and unimproved land can well be made. In many cases the former owners cannot be found, and the land is returned to its primitive state.

But Missouri has taken a new lease of life, and it is to be hoped that her future growth in population and wealth will be commensurate with the unrivaled advantages she offers.

We addressed circulars to the clerks of all the county courts in the State, and from some (a few) have received satisfactory reports. These we have arranged in tables, so as to make as complete an exhibit of the present condition of agriculture as possible.

These results will be found under the head of Second Series.

CHARACTER OF THE SEASON AND CONDITION OF AGRICULTURE, 1866.

SECOND SERIES.

Counties.	Character of the Spring.	Summer.	Autumn.	Character of crops of fruit.	Cultivation of Grapes.	Condition of fruit Cultivation.	Grain, Crops, etc.
Audrain	Cold & late.	Dry	Wet	Apples, half crop; grapes, winter-killed; pears, half crop.	Not much cultivated	Increasing	Crops half as large as in 1865.
Callaway	Wet	Dry and hot.	Pleasant	Light; peaches, killed in February; apples, few.	Not much cultivated; affected by rot or blight.	Increasing	Generally light.
Cedar	Wet and cold	Dry	Rainy	Apples, good; peaches, half crop; pears, do.	None cultivated; wild, plenty.		Corn, average crop; wheat, over average; oats and hay, average; vegetables over average.
Clinton	Favorable.	First favorable, then dry.	Favorable.	Not abundant.	Suffered from blight.	Increasing	Abundant.
Cole	As usual	First favorable, then dry.	Favorable.	Not full crops	Few cultivated; failed.	Increasing rapidly.	Twenty percent. above last year.
Boone	Wet and cold	Dry and hot.	Mild and favorable.	Apples, quantity fair, quality inferior; pears and peaches, half crop.	Not cultivated.		Corn and wheat, one-half crop; oats, fifty per cent. more than usual.
Greene				Fruit abundant; apples, extremely fine.	Not much cultivated	Increasing	Corn, half crop; wheat, better; rye, oats and barley about the same as usual.
Gentry	Wet	Dry	Warm	Apples, half crop; too cold for peaches.	Just being introduced; wild grapes abundant.		Corn, half crop; hay, good; potatoes, half crop.
Iron	Warm and early.	Pleasant and dry.	Warm and wet.	Apples, by moth; pears, good; peaches, full crop.			Corn, short crop; wheat, good; hay, plenty.
Lawrence	Wet and cool	Dry & warm	Delightful	Apples, average; pears, not average; peaches, do; cherries, average; wild grapes, not average.	Not much cultivated	Increasing	Corn, not average; oats average; hay, not average; vegetables, not average.

Osage	Wet; last part of the seas'n dry.	Wet		Fruit crop, quality good; quantity, about half.	Not very good.	Increasing	Corn, half crop; wheat, fair, good quality; oats and barley, do.
Perry.	Moist.	Early part dry; latter favorable.	Pleasant	Fruit, large crop	Not much cultivated	Increasing	Hay, good; wheat, do; corn, oats and barley, above average.
Phelps.	Wet	Dry	Pleasant	Peaches, fair crop; apples, do; pears, few cultivated.	Grow well and free from blight.	Increasing	Corn, wheat, barley, oats, full average.
Randolph	Wet	Dry & cool.	Pleasant	Fruit crops, average	No vineyards.	Not perceptibly increasing.	Grain crop, average; vegetables, good; potatoes, especially, good.
Hickory	Wet	Cool.	Wet	Fruit, average.	Not cultivated.	Increasing	Wheat, good; corn, half crop; oats, barley and vegetables, fair average.
Johnson	Wet & cool	First part wet; last dry & hot.	Wet	Apples, good crop; peaches, a failure.	Not cultivated.	Increasing	Good crops of all kinds of grain.
Livingston	Early and warm.	Hot and dry.	Dry	Apples and pears, good; peaches a failure.	Few cultivated; quality good.	Increasing	Wheat, oats, rye and hay, full average.
Ray.	Average			Fruit crop short; no peaches; grapes, light crop.	Not much cultivated	Increasing	Corn, not average; wheat, very fine; oats, small crop; hay, very fine.
Scotland	Cold and wet	Pleasant	Cool.	Apples, good crop; peaches, none; grapes, few.	Not much cultivated	Increasing rapidly.	Corn, half crop; oats, abundant; hay, about average; wheat, not much cultivated.
Shelby.	Rather late.	Dry.	Wet	Fruit good, except peaches.	Not much cultivated	Increasing	Corn, large in quantity, but bad in quality; wheat and oats, little raised; hay, good.
St. Louis	Rather late; generally favorable,	First, rather dry; latter half, wet.	Wet at first, then dry.	Fruit crop, deficient and inferior; apples, half crop; peaches, half crop; grapes three-fourths crop, except Catawba.	A good many cultivated	Fifty per cent. more this season than ever before.	Corn, seven-eighths crop; quality soft; wheat, very good, three-fourths crop; oats, fair; hay, very good; damage by insects increasing every year.
Marion	Favor'ble for early pl'nting.	Average	Wet	Fruit crop a failure; grape, below average.	Is considered a paying crop.	This y'r double as many trees planted as last year.	Corn, above average; hay, nearly double the average; potato, crop comparative failure; hemp, average one thousand pounds to the acre.

CHARACTER OF THE SEASON AND CONDITION OF AGRICULTURE, 1866.

SECOND SERIES.

Counties.	Character of the Spring.	Summer.	Autumn.	Character of crops of fruit.	Cultivation of Grapes.	Condition of fruit Cultivation.	Grain, Crops, etc.
Audrain	Cold & late.	Dry	Wet	Apples, half crop; grapes, winter-killed; pears, half crop.	Not much cultivated	Increasing	Crops half as large as in 1865.
Callaway	Wet	Dry and hot.	Pleasant	Light; peaches, killed in February; apples, few.	Not much cultivated; affected by rot or blight.	Increasing	Generally light.
Cedar	Wet and cold	Dry	Rainy	Apples, good; peaches, half crop; pears, do.	None cultivated; wild, plenty.		Corn, average crop; wheat, over average; oats and hay, average; vegetables over average.
Clinton	Favorable.	First favorable, then dry.	Favorable.	Not abundant.	Suffered from blight.	Increasing	Abundant.
Cole	As usual	First favorable, then dry.	Favorable.	Not full crops	Few cultivated; failed.	Increasing rapidly.	Twenty percent. above last year.
Boone	Wet and cold	Dry and hot.	Mild and favorable.	Apples, quantity fair, quality inferior; pears and peaches, half crop.	Not cultivated.		Corn and wheat, one-half crop; oats, fifty per cent. more than usual.
Greene				Fruit abundant; apples, extremely fine.	Not much cultivated	Increasing	Corn, half crop; wheat, better; rye, oats and barley about the same as usual.
Gentry	Wet	Dry	Warm	Apples, half crop; too cold for peaches.	Just being introduced; wild grapes abundant.		Corn, half crop; hay, good; potatoes, half crop.
Iron	Warm and early.	Pleasant and dry.	Warm and wet.	Apples, by moth; pears, good; peaches, full crop.			Corn, short crop; wheat, good; hay, plenty.
Lawrence	Wet and cool	Dry & warm	Delightful	Apples, average; pears, not average; peaches, do; cherries, average; wild grapes, not average.	Not much cultivated	Increasing	Corn, not average; oats average; hay, not average; vegetables, not average.

Osage	Wet; last part of the seas'n dry.	Wet		Fruit crop, quality good; quantity, about half.	Not very good.	Increasing	Corn, half crop; wheat, fair, good quality; oats and barley, do.
Perry	Moist.	Early part dry; latter favorable.	Pleasant	Fruit, large crop	Not much cultivated	Increasing	Hay, good; wheat, do; corn, oats and barley, above average.
Phelps	Wet	Dry	Pleasant	Peaches, fair crop; apples, do; pears, few cultivated.	Grow well and free from blight.	Increasing	Corn, wheat, barley, oats, full average.
Randolph	Wet	Dry & cool.	Pleasant	Fruit crops, average	No vineyards.	Not perceptibly increasing.	Grain crop, average; vegetables, good; potatoes, especially, good.
Hickory	Wet	Cool.	Wet	Fruit, average.	Not cultivated.	Increasing	Wheat, good; corn, half crop; oats, barley and vegetables, fair average.
Johnson	Wet & cool	First part wet; last dry & hot.	Wet	Apples, good crop; peaches, a failure.	Not cultivated.	Increasing	Good crops of all kinds of grain.
Livingston	Early and warm.	Hot and dry.	Dry	Apples and pears, good; peaches a failure.	Few cultivated; quality good.	Increasing	Wheat, oats, rye and hay, full average.
Ray	Average			Fruit crop short; no peaches; grapes, light crop.	Not much cultivated	Increasing	Corn, not average; wheat, very fine; oats, small crop; hay, very fine.
Scotland	Cold and wet	Pleasant	Cool	Apples, good crop; peaches, none; grapes, few.	Not much cultivated	Increasing rapidly.	Corn, half crop; oats, abundant; hay, about average; wheat, not much cultivated.
Shelby	Rather late	Dry.	Wet	Fruit good, except peaches.	Not much cultivated	Increasing	Corn, large in quantity, but bad in quality; wheat and oats, little raised; hay, good.
St. Louis	Rather late; generally favorable,	First, rather dry; latter half, wet.	Wet at first, then dry.	Fruit crop, deficient and inferior; apples, half crop; peaches, half crop; grapes three-fourths crop, except Catawba.	A good many cultivated	Fifty per cent. more this season than ever before.	Corn, seven-eighths crop; quality soft; wheat, very good, three-fourths crop; oats, fair; hay, very good; damage by insects increasing every year.
Marion	Favor'ble for early pl'nting.	Average	Wet	Fruit crop a failure; grape, below average.	Is considered a paying crop.	This y'r double as many trees planted as last year.	Corn, above average; hay, nearly double the average; potato, crop comparative failure; hemp, average one thousand pounds to the acre.

CHARACTER OF THE SEASON AND CONDITION OF AGRICULTURE, 1866—CONTINUED.

Counties.	Character of the Spring.	Summer.	Autumn.	Character of crops of fruit.	Cultivation of Grapes.	Condition of fruit Cultivation.	Grain, crops, etc.
Knox.....	Wet & cold..	Average....	Average....	Fruit crop cut short by late frosts in the spring.	Rather cold for grapes; eswhen the vine is covered does well.	Increasing, especially apples.	Corn, crop not good; hay, abundant; crops generally above average; vegetables, extra fine.
Clark.....	Cool & backward.	Favorable...	Sept. cold & wet; frost Sept. 21; latter part favorable.	Apples, full crop, except when injured by worm; fruit, generally good.	Few planted; about half crop.	Increasing....	Corn, crop light; wheat, little sown; spring wheat, extra fine; oats, good, the best for two years; hay, do.; crop not quite so good as last year.
Putnam.....	Wet & cold.	Pleasant....	Pleasant....	Fruit crop good; peaches, few raised.	Not much cultivated...	Increasing....	Corn, crop rather poor; wheat and oats, best for two years; season generally unfavorable for vegetables.
St. Clair....	Wet and cold	Pleasant....	Pleasant....	Fruit, good crop.....	Few cultivated..... ..	Increasing rapidly.	Early planted corn did well; late, light crop cut off by frost; wheat rather above average; hay good.
DeKalb	Early part dry, latter cold and wet.	Early part wet.	Very wet...	Fruit crop light; orchards rather scare.	Not much cultivated...	Increasing	Crops average.
Franklin ...	....	....	....	Hitherto little raised; peaches very sure crop.	Extensively cultivated.	Increasing....	
Harrison ...	Favorable ..	Wet.....	Wet..... ..	Apples half crop; peaches very uncertain; pears not raised.	Just beginning to be cultivated; grow well.	Increasing....	Wheat, oats and grass fifty percent. above average; corn comparative failures, poor quality.
Monroe	Cold and late	Dry	Wet.....	Apples half crop	....	....	Season generally unfavorable for corn and wheat; oats and hay fine.

Gasconade..	.....	.....	.....	Fruit crops small; apples one-half; peaches one-tenth; pears one-half; grapes three-fourth of a crop.	Grapes are cultivated a good deal; did not suffer much from blight.	Rapidly increasing.	Total production of vineyards, 50,000 gallons of wine and $40,000 worth of plants.
New Madrid	Clear, open weather.	Dry and warm.	Wet and cool	Fruit crop light; no peaches; few apples; trees troubled with blight.	Grapes but little cultivated; suffer by rot and blight.	Cultivation of fruits increasing; grapes neglected.	Crops generally not more than three-fourths average; some castor beans raised; cotton does well.
Cooper	Rather cold.	Unusually dry.	Dry, except the latter part.	Apples, peaches and pears poor crop; grapes good.	Grapes largely cultivated and increasing.	Increasing rapidly and pays well.	Grain crops not near as good as last year.
Scott	Rather cold.	Warm and wet.	Pleasant....	Fruit crop inferior; apples do not keep well.	Not much grown.....	Increasing....	Crops not more than half an average.
Mississippi.	Rather dry and cold.	Not very warm.	Pleasant....	Apple crop good; peaches short.	Not much cultivated...	Increasing....	Full average crops.
Nodaway...	Dry and cool	Dry and cool	....	Fruit crop light.....	Not extensive where cultivated; an abundant crop.	Increasing....	Wheat crop good; grass very good; prairie hay large crop.
Dade.....	Rather wet.	Seasonable; July hot and dry.	Fine; frost late.	Apple crop good; do peach; do pear.	Not many raised; wild abundant.	Not many raised; would pay well.	Corn crop not an average; wheat very good; barley not raised; hay full average.
Pike	Wet and unfavorable.	Dry and hot.	Wet.....	Light	Many young vineyards just started.	Increasing....	Usual crop of corn; wheat light but choice; heavy crop of hay; oats less than usual; large crop of potatoes and other vegetables.

Counties.	HORSES.		MULES.		CATTLE.		SHEEP.		HOGS.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Caldwell*	2,941	$122,250	791	$29,689	7,652	$84,882	13,943	$13,943	7,585	$32,906
Gasconade	3,516	180,748	567	34,137	9,843	123,129	13,007	24,146	22,036	50,112
Lafayette	3,922	226,630	1,408	85,000	13,007	184,875	14,997	23,020	22,013	87,992
Lewis	5,888	355,528	1,375	93,030	12,857	242,522	34,674	51,575	33,482	142,337
Perry†										
St. Clair‡	3,500	280,000	150	15,000	21,000	210,000	21,000	42,000	7,000	28,000
Moniteau	4,775	235,253	1,333	78,189	10,423	146,486	21,067	33,131	26,395	66,033
Holt	2,965	162,271	721	49,796	10,229	130,538	9,398	15,957	26,898	81,551
Scotland	4,990	328,791	713	42,113	12,543	154,528	32,240	35,909	30,784	68,115
Sullivan	4,570	248,114	424	26,955	11,949	190,657	24,049	35,842	21,453	41,929
Knox	4,402	339,169	705	43,725	12,476	245,377	23,935	40,110	28,608	108,673
Pettis	3,544	134,151	1,400	63,712	8,356	101,805	13,570	21,884	9,369	16,252
Carter§	259	9,635	21	895	1,068	9,368	538	797	2,312	2,909
Polk	4,502	202,439	868	39,827	9,920	72,387	13,712	13,712	21,421	27,630
Franklin	5,155	218,243	944	50,522	14,572	170,235	15,241	310,162	39,374	74,271
St. Louis	14,101	1,035,925	3,243	254,280	17,483	276,437	4,570	9,390	22,351	96,069
Cooper	1,969	107,650	1,386	90,390	2,298	39,875	4,693	6,775	2,960	12,715
Audrain	3,194	164,969	1,302	76,370	11,263	146,639	19,316	28,550	11,017	48,079
Dade‖	2,953	175,070	345	21,000	7,400	105,700	7,700	18,000	14,000	38,500

*This report is made for 1867, there being no date to go by for 1866.

†Present tax does not furnish details—next will.

‡Asses 100.

§This county lay in the track of Price's raid.

‖Other personal property $365,000.

COUNTIES.	LAND.				GRASSES.			
	Improved, acres.	Unimproved, acres.	Forest, acres.	Unbroken prairie, acres.	Pasture, acres.	Meadow, acres.	Meadow, tons hay.	Meadow, bushels seed.
Caldwell	31,014	62,255	26,160	.....	.....	1975	4082	.....
Christian	14,450	54,602	54,602	.....	82	385	195	.....
Knox	64,413	26,368	163,891	163,891	.....	7179	14,359	.....
Scotland	72,756	.....	72,115	118,021	15,856	9248	9875	316
Randolph	.....	.....	.....	.....	.....	4720	4720	.....
Cooper	89,035	102,594	82,810	1248	26,487	5718	4024	1168
Gasconade	42,413	287,497	.....	.....	.....	2619	2619	.....
Platte	172,098	40,137	1414	115	42,149	2619	2619	85
Pettis	34,892	75,710	35,790	39,772	7150	4800	5100	.....
Hickory	16,727	64,491	53,581	18,319	1103	1678	1385	42
Monroe	195,046	22,099	.....	.....	.....	.....	.....	.....
Daviess	.....	.....	.....	.....	2700	.....	.....	.....
Callaway	115,008	345,787	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	2265	1278	.....
Sullivan	.....	.....	.....	.....	.....	2296	4186	85
Harrison	46,816	114,332	4325	70,330	5447	2721	4260	243
Carter	2964	26,368	26,250	331	12	43	22	.....
Lewis	.....	.....	.....	.....	31,310	9863	7884	.....
Mississippi	23,270	68,889	58,169	1196	210	295	339	.....

OF COUNTIES.—*Continued.*

GRAINS.

Corn, acres.	Corn, bushels.	Fall wheat, acres.	Fall wheat, bushels.	Spring wheat, acres.	Spring wheat, bushels.	Oats, acres.	Oats, bushels.	Rye, acres.	Rye, bushels.	Barley, acres.	Barley, bushels.
15,003	633,910	369	4550	.....	.....	2124	52,395	10	160	.....	.....
10,100	145,449	3737	21,521	1	15	2480	29,222	232	1637	1	4
34,282	697,988	146	1236	.....	.....	2407	61,425	25	338	.....	.....
35,458	598,712	662	3152	316	532	3656	42,421	614	3751	.....	.....
14,769	443,070	1056	10,560	.....	.....	1969	39,380	931	9310	.....	.....
38,120	656,187	7864	7852	4	50	5105	94,604	656	1285	187	550
19,383	370,435	6063	73,608	.....	.....	5496	101,340	162	2025	1827	16,842
48,560	1,093,200	28,972	500,914	1499	19,344	14,302	198,628	1058	13,604	95	531
13,602	482,470	883	13,245	.....	.....	2377	43,709	60	501	.....	.....
7675	173,994	1617	11,047	96	804	1000	21,658	77	957	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22,125	669,200	1447	16,058	.....	.....	1853	33,705	.....	.....	.....	.....
14,916	366,882	6378	28,898	.....	.....	4676	85,560	278	2367	.....	.....
17,528	360,760	137	1683	.....	.....	541	7675	144	1190	.....	.....
34,120	446,176	877	11,659	224	4716	3387	107,855	107	1519	5	58
1125	21,920	266	1765	.....	.....	284	3256	26	157	3	.....
33,215	1,176,793	2819	19,098	.....	.....	4127	81,813	457	6847	7	140
10,851	286,700	1358	12,595	.....	.....	331	5005	12	15	2	25

COUNTIES.	GRAINS.				LEGUMES.					
	Buckwheat, acres.	Buckwheat, bushels.	Hungarian grass, acres.	Hungarian grass, tons.	Peas, acres.	Peas, bushels.	Beans, acres.	Beans, bushels.	Castor beans, acres.	Castor beans, bushels.
Caldwell	.....	.....	475	1672	.....	.....	.....	.....	.....	.....
Christian	1	18	116	76	10	15	2	25	.....	.....
Knox	.....	.....	3256	6512	.....	.....	.....	.....	.....	.....
Scotland	471	1173	2580	2364	.....	.....	2½	348	.....	.....
Randolph	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cooper	2	31	155	99	.....	.....	.....	.....	.....	13
Gasconade	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Platte	38	237	2163½	2140	.....	.....	.....	2	.....	.....
Pettis	.....	.....	884	1668	.....	.....	.....	.....	.....	.....
Hickory	.....	.....	469½	612	.....	.....	.....	.....	.....	.....
Monroe	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Daviess	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Callaway										
Lincoln	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sullivan	.....	.....	364	529	.....	.....	.....	.....	.....	.....
Harrison	36	287	1343	1776	.....	.....	.....	9	.....	.....
Carter	.....	.....	14	14	2½	10	2½	9	½	50
Lewis	19	353	3187	.....	.....	.....	25	113	.....	.....
Mississippi	.....	.....	3	6	.....	.....	.....	.....	.....	.....

OF COUNTIES—*Continued.*

ROOTS, ETC.

Irish potatoes, acres.	Irish potatoes, bushels.	Sweet potatoes, acres.	Sweet potatoes, bushels.	Turnips, acres.	Turnips, bushels.	Beets, acres.	Beets, bushels.	Carrots, bushels.	Cabbage, acres.	Cabbage, heads.	Onions, acres.	Onions, bushels.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
81	855	30	2369	3	175	3	251	.....	2	615	3	511
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
220	11,120	3½	175	9	1471	1	39	.....	7	593	7½	1959
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
204	8701	191	606	.....	339	.....	20	70	1100	44,799	2827	377
396	18,945	.....	.....	.....	.....	.....	.....	.....	.....	70	.....	.....
520½	47,824	1072	4927	160	40,822	7	8	2	510	403,040	.....	2466
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	3008	5½	517	2 0-10	195	.....	.....	.....	31	47,425	4	18
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
53	3447	2	62	1	30	.....	7	6	.....	3333	.....	466
8	783	1	94	5	475	1-9	8	.....	1	54	1-6	16
303	13,362	.....	850	.....	1130	.....	.....	.....	.....	.....	.....	125
77½	7005	11	958	7½	1245	2½	25	.....	1	8725	.....	42

COUNTIES	TEXTILE PLANTS.							NARCOTIC PLANTS.			
	Flax, acres.	Flax, bushels seed.	Flax, pounds lint.	Hemp, acres.	Hemp, pounds fiber.	Cotton, acres.	Cotton, pounds unginned	Hops, acres.	Hops, pounds.	Tobacco, acres.	Tobacco, pounds.
Caldwell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Christian	5	45	550	.....	.....	41	10,337	1	10	42	23,878
Knox	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	17,700
Scotland	27	487	174	.....	.....	.....	.....	.....	.....	23	9431
Randolph	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,629,000
Cooper	4½	63	870	2	1600	130	2645	.....	.....	86	44,570
Gasconade	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Platte	.....	.....	110	773	100,255	.....	.....	.....	.....	300½	173,882
Pettis	.....	.....	.....	.....	.....	.....	.....	.....	.....	24	31,000
Hickory	12½	13½	1240	.....	.....	82	30,826	.....	.....	30½	16,985
Monroe	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Daviess	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....	.....	.....	.....	763	404,939
Sullivan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison	4	8	1255	.....	.....	1	270	.....	.....	8	6400
Carter	¼	20	¼	20	.....	24¼	15,764	.....	.....	6	4422
Lewis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4750
Mississippi	.....	.....	.....	.....	.....	2030	60,689	.....	.....	.....	.....

OF COUNTIES—*Continued.*

GROUND PLANTS.				SUGAR PLANTS, ETC.								
Pumpkins, acres.	Pumpkins, pounds.	Melons, acres.	Melons, hundreds.	Sorghum, acres.	Sorghum, gal. sirup.	Sorghum, pounds sugar.	Maple, No. trees.	Maple, gals. sirup.	Maple, pounds sugar.	Brcom corn, acres.	Broom corn, lbs. brush.	Broom corn, tons
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2½	42	305	39	54	6782	.....	275	363	263	8½	4352	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	4½	39	423	41,178	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20½	30,700	.....	872	161	16,874	.....	.....	.....	.....	⅜	210	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	.....	.....	2695	2988	35,810	260	340	.....	365	12	100	.....
.....	.....	.....	.....	105	8584	.....	.....	.....	.....	.....	.....	.....
49¼	106,200	7⅜	4439	59	11,116	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	26,764	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	201	.....	306	103	6758	.....	433	....	210	1½	76	.....
35½	664	21½	18,204	23	3143	2	7	.....	.....	1	600	.....
.....	.....	.....	.....	290	27,645	.....	.....	.....	730	.....	.....	.....
298	178,000	17	2800	20	1295	.....	.....	.....	.....	.....	.....	.....

COUNTIES.	APPLES.			PEARS.		PEACHES.		GRAPES.		
	Trees, No.	Fruit, bushels.	Cider, gallons.	Trees, No.	Fruit, bushels.	Trees, No.	Fruit, bushels.	Vines, No.	Fruit, pounds.	Wine, gallons.
Caldwell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Christian	4898	5942	.....	148	5	6061	4731	18	.....	.....
Knox	17,138	3530	.....	286	½	5634	372	120	91	.....
Scotland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Randolph	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cooper	51,647	18,536	62	1753	25¼	3120	2	5188	6935	135
Gasconade	.....	22,416	.....	.....	.....	.....	.....	250	.....	29,012
Platte	68,589	613,333	390	2934	23,003	47,380	286,018	acres. 2475	.....	.....
Pettis	16,556	20,490	.....	.....	.....	15,692	28,768	126	.....	.....
Hickory	16,311	25,128	1400	56	22½	7282	5022	.....	.....	.....
Monroe	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Daviess	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sullivan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison	41,698	2972	.....	381	1	2609	.....	764	.....	.....
Carter	1812	2174	23	237	49	736	230	430	240	.....
Lewis	.....	5050	.....	.....	.....	.....	.....	.....	3500	.....
Mississippi	11,674	10,467	183	346	187	.....	.....	.....	.....	.....

OF COUNTIES—*Continued.*

SMALL FRUITS.			NEAT CATTLE.							HORSES.	
Kind.	Bushels, No.	Fruit, bushels.	Oxen, No.	Milch cows, No.	Milch cows, lbs. butter.	Milch cows, lbs. cheese.	Calves, No.	Beeves, No.	Beeves, pounds.	Stock, No.	Work, No.
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
....	.....	.....	482	1178	20,684	16	1110	525	68,974	1982	927
....	.....	.....	298	2973	132,974	490	2173	6801	.....	.....	2521
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
....	21	.....	845	3032	51,978	4	2335	3448	30,521	3036	2309
....	.....	.....	Total	No.	neat	cattle.	9843	.....	.....	.....	.....
....	.....	.....	3353	5142	129,090	.....	4278	77	142,814	582	2598
....	.....	.....	.....	1834	88,930	.....	1582	466	.....	2848	1144
....	.....	.....	629	1485	41,661	560	1336	201	68,043	1874	924
....	.....	.....	Total	1308	.....	.....	.....	.....	.....	.....	5932
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
....	.....	.....	Total	No.	cattle,	1194	.....	.....	.....	.....	.....
Cherries...	210	5	313	3432	196,568	2885	2934	384	319,821	4539	1448
Currants...	130	15									
....	12	.....	169	305	5387	.....	273	135	32,602	144	198
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
....	.....	.....	491	1071	27,385	.....	1029	521	.....	.....	335

COUNTIES.	HORSES.			MULES		SWINE.				SHEEP.	
	Brood, No.	Stock, No.	Colts, No.	Work, No.	Colts, No.	Sows, No.	Pigs, No.	Fat, No.	Stock, No.	Wethers, No.	Ewes, No.
Caldwell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Christian	574	25	268	83	49	1139	5252	3046	391	1616	1732
Knox	1833	.....	636	502	211	7732	14,131	8921	.....	10,571	14,521
Sullivan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Randolph	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cooper	1745	272	733	600	839	3080	16,093	11,091	21,448	4864	10,912
Gasconade	Total	3516	.....	Total	567	Total	22,036	.....	.....	Total	13,007
Platte	2361	827	1051	971	519	4306	16,513	14,368	11,602	7119	7170
Pettis	.....	.....	.....	572	467	.....	.....	.....	.....	.....	.....
Hickory	884	390	359	64	132	1004	4644	2846	4769	2180	2380
Monroe	.....	.....	.....	Total	1694	Total	17,106	.....	.....	Total	13,996
Daviess	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sullivan	Total	horses	4570	Total	424	Total	2143	.....	.....	Total	24,049
Harrison	1437	1064	792	173	324	2649	10,771	3304	9296	10,261	11,180
Carter	182	80	.....	16	4	362	1098	200	1068	224	246
Lewis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mississippi	312	130	120	255	33	2379	11,822	5279	6520	370	65

OF COUNTIES—*Continued.*

SHEEP.		POULTRY.				BEES.			FORESTS.		COAL.	
Lambs, No.	Wool pounds.	Chickens, No.	Turkeys, No.	Ducks, No.	Geese, No.	Hives, No.	Wax, pounds.	Honey, pounds.	Lumber, feet.	Wood, cords.	Coal, tons.	Coal, value.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
314	8338	16,533	264	6664	1430	699	61	4817	111,340	.....	.....	.....
7149	.....	37,295	1450	1396	7316	1564	243	4353	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	150	$244
5561	47,393	40,446	2885	2220	3216	498	178	1240	.....	370	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4737	5706	39,949	11,218	2414	6080	234	20	6360	323,363	.....	.....	.....
.....	.....	.....	.....	.....	.....	282	.....	10,390	.....	.....	.....	.....
1660	16,981	12,068	228	211	1798	490	200	4395	13,765	2911	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7473	60,990	30,248	1710	1381	6160	1745	511	13,246	510,570	110	.....	.....
141	860	2380	35	209	176	168	120	925	1000	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
329	2676	27,355	86	830	1788	469	867	4966	1381	250	.....	.....

COUNTI'S	LIME.		EMPLOYES.		HOUSES.			BARNS, STABLES.		
	Bushels.	Value.	No. of.	Average wages.	No.	Material.	Value.	No.	Material.	Value.
Caldwell..	.....	.....	.....	.....	.....	....	....	.....	....	....
Christian..	.....	.....	.....	.....	683	Log and frame.	$40,220	527	Log and frame.	$10,173
Knox.....	.....	.....	.....	.....	.....	....	....	.....	....	....
Scotland...	.....	.....	.....	.....	.....	....	....	.....	....	....
Randolph..	.....	.....	.....	.....	.....	....	....	.....	....	....
Cooper	.....	.....	.....	.....	178	Wood.	318,572	1135	Wood.	143,442
Gasconade.	....	.....	.....	.....	.....	....	....	.....	....	....
Platte.....	900	$310	65	2967	2528	....	933,126	7704	....	94,490
Pettis.....	.....	.....	.....	.....	.....	Brick & wood.	850	1110	Wood.	Av. $100
Hickory....	.....	.....	.....	.....	440	....	54,386	241	....	15,055
Monroe....	.....	.....	.....	.....	.....	....	....	.....	....	....
Daviess....	.....	.....	.....	.....	.....	....	....	.....	....	....
Lincoln ...	.....	.....	.....	.....	.....	....	....	.....	....	....
Sullivan....	.....	.....	.....	.....	.....	....	....	.....	....	....
Harrison...	.....	.....	.....	.....	947	Wood.	176,400	265	....	25,655
Carter.....	.....	.....	.....	.....	142	Wood.	4232	114	Wood.	1388
Lewis.....	.....	.....	.....	.....	.....	....	....	.....	....	....
Mississippi	.....	.....	267	2325	425	Brick & wood.	166,755	234	....	22,575

OF COUNTIES—*Continued.*

FENCES.			*DWELLINGS.			*BARNS, STABLES.			*MILLS, FACTORIES.		
Rail, rods.	Board, rods.	Hedge, rods.	No.	Material.	Value.	No.	Material.	Value.	No.	Material.	Value.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
143,785	603	4	13	Log.	$755	1	.....	.....	1	.....	$1000
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
370,142	38,368	11,239	.....	.....	.....	.....	.....	.....	1	Wood.	5000
.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
981,260	245,100	25,800	196	.....	297,780	.....	.....	.....	.....	.....	.....
395,310	12,060	400	500	Wood.	500,000	84	.....	59,200	2	Wood.	15,000
150,145	99	.....	15	Wood.	1700	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
410,950	1100	4744	36	.....	9290	15	.....	1665	.....	.....	.....
39,205	.....	.....	1	Log.	50	2	Log.	40	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
196,895	3270		19	1500	3525	5	.....	725	2	500	200

*New structures (built within a year.)

THIRD SERIES.—FARM STATISTICS

COUNTIES	*CHURCHES, ACADM'S			†BIRTHS.				†MARRIAGES.				†DEATHS.		
	No.	Material.	Value.	White males.	White females.	Colored males.	Colored females.	White.	Age.	Colored.	Age.	Age.	Single.	Married.
Caldwell	....	....	.....	45	39	5	....	69	*1613	79	..	*582	164	8
Christian	....	....	.....	41	41	1	....	33	.....	..	..	1	5	2
Knox	....	....	.....	90	70	6	....	49	.....	..	..	.....	38	42
Scotland	....	....	.....	108	80	....	....	84	.....	5	..	.....	66	22
Randolph	....	....	.....	95	80	40	*	85	.....	9	..	.....	119	21
Cooper	....	....	.....	16	18	....	....	66	552	..	20	203	3	....
Gasconade	19	Stone, brick, wood.	$6500	197	183	....	....	95	.....	..	..	.....	128	144
Platte	....	....	.....	112	1	38	55	78	126	..	..	.....	148	100
Pettis	....	....	.....	90	48	24	16	50	24	..	..	.....	20	10
Hickory	....	....	.....	60	48	1	6	49	*1481	..	..	56	11	1
Daviess	....	....	.....	170	188	5	3	105	.....	..	..	.....	47	....
Lincoln	4	....	.....	127	82	....	....	55	.....	..	..	.....	....	....
Sullivan	....	....	.....	68	62	....	1	75	.....	..	..	.....	36	8
Harrison	....	....	.....	84	84	4	4	78	*1659	..	..	806	28	15
Carter	....	....	.....	20	14	....	....	8	.....	..	..	.....	12	5
Lewis	....	....	.....	147	131	7	11	93	.....	58	..	.....	82	25
Mississippi	....	....	4	30	32	1	1	9	181	..	..	1877	9	6

*New structures (built within a year.) †Social statistics for the year ending Sept., 1866.

OF COUNTIES—*Continued.*

†DEATHS.					REMARKS.
Widowed, white.	Age, colored.	Single, colored.	Married, colored.	Widowed, colored.	
.....	.....	.....	.....	.....	*Total of ages.
2	81	.....	.....	.....	One fine flouring mill on Findley creek.
.....	.....	.....	.....	.....	
2	.....	3	.....	.....	
10	*	10	.....	4	*Included in other classes.
.....	.....	.....	.....	.....	
8	.....	.....	.....	.....	
.....	.....	.....	.....	.....	There seems to be an error in the returns of buildings; the average is over $1,500 apiece.
*4	.....	*10	*5	.....	*Average age 31. Two steam mills have been built this year. One large flouring mill and one saw-mill.
2	.....	.....	.....	.....	Only ten townships are reported in this county.
10	.....	.....	.....	.....	Total deaths, 102.
.....	.....	.....	.....	.....	
2	.....	.....	.....	.....	Four steam grist-mills erected this year.
.....	.....	.....	.....	.....	*Total of ages.
.....	.....	.....	.....	.....	
14	.....	14	2	2	
4	7	1	.....	.....	

†Social statistics for the year ending September, 1866.

MANUFACTURING STATISTICS.

It cannot be expected that a State like Missouri, just emerging from a wilderness and subjected, during its brief existence, to the influence of a "peculiar institution" which, however much it may increase agricultural products, never yet, wherever it has existed, exerted a benign influence upon manufactures. Its tendency is to scatter the population through a wide extent of country, and the productions of the earth offering the means of subsistence and comparative comfort so cheaply, there is less inducement to settle in towns and villages, building up mills and factories, which consume rather than produce.

Manufacturing nations never spring into full life at once; they are the growth of ages. A country may abound in the natural facilities for manufacturing, yet make no progress in that direction. The English, now standing in the front rank among manufacturing nations, did not fall into that position by reason of the great natural advantages they possess; their various mines, of almost every useful metal, would have yet been undeveloped, the products of her flocks and herds unconsumed, had not skill and enterprise applied their transforming power and fitted them for the use of man; and England owes her present proud position as a manufacturing nation to the political blunders of her neighbors. The oppression of the Spanish Government in the Netherlands annually drove thousands of industrious and skillful people to seek shelter in England. The revocation of the "Edict of Nantes," so ruinous to France, was a godsend to England. With one sweep of his pen the French monarch sent to Great Britain the most valuable portion of his population; the most skillful artisans, the most learned men, left their homes in thousands that they might enjoy liberty and toleration in a land which in every other respect was most uncongenial.

And the English nation was wise enough to receive these people with open arms. Laws were passed for their benefit; their manufatures were fostered; the nation appreciated their value. France's loss was England's gain. Well for her that wisdom prevailed in her councils. These exiles infused a new spirit into a people who sheltered them. The English, from an agricultural people, began to improve in manufactures; and from this time we may date the dawn of England's greatness. Fortunate for them that they comprehended the advantages offered, and appreciated the people who were driven to their shores.

Had they done otherwise, had they repulsed these refugees, where would England be now? Where Spain is, only in a worse position, because the climate and soil of England have few attractions in themselves, while Spain is proverbially the land of beauty and fertility, which, under the Moors, was an oriental paradise.

Let us profit by this lesson from history. We have the climate, the soil, the material for a great manufacturing people, and success depends upon our own efforts. We have no neighboring nations who are likely to drive their best population to our shores. If emigrants come at all, they must come because inducements are offered, and because they believe it is for their interest and happiness to do so.

Political trouble, ending in war, has engendered much intensely bitter feeling between different sections of the country; but now that the matter is settled and the cause removed, let us accept the condition of things, and, not like children, pout and grumble because our willfulness has been restrained. Let us hold out the right hand of friendship to every one who comes to develop our unbounded natural wealth. It is useless to talk about our fertile soil, our pleasant valleys, our boundless prairies, our vine-clad hills, the richness of our wondrous mines of every metal useful to man, unless we offer inducements, political and social, to labor and capital to come and settle among us.

The artisan will hesitate to cast his home and fortune in a land where labor is despised, and where the advantages of public schools are denied his children. The capitalist will not invest his money among an unthrifty and ignorant people. Let us show, by our peace and quietness, by our observance of law and order, that we are determined to banish anarchy

and misrule from the State; and let the world know that Missouri offers a home to every one who seeks her borders. Let all, whatever may be their nationality, find here a welcome.

No nation can be truly great, independent and self-sustaining where manufactures do not flourish. It is a fact in political economy that a purely agricultural people is always at the mercy of the manufacturing ones. They can produce, but their products must pass through other hands before they can enjoy the fruits of their labor. This necessarily gives the manufacturer control over the producer.

Spain, by her commercial treaties with England, has placed herself completely within the power of that nation. She must buy and sell as England dictates. Now, if the South is so anxious to free itself from Yankee rule, it can be done much easier than by grumbling and fighting. Foster home manufactures, encourage industry, learn to fabricate what she uses, and her rights will be obtained much sooner than by any other means. It is a matter for congratulation that mills and factories are so rapidly springing up all over the State. In very many of the county reports which come to this office, mention is made of the erection of woolen mills and other factories—on a small scale, to be sure, but they are signs of the times, besides offering to the farmer a market for his wool and other products of his land. Agriculture and manufactures mutually support each other, and thrift and happiness are the sure results of their union.

Full and reliable statistics of our progress in the arts we have found exceedingly difficult to obtain. We have sent circulars to every county in the State asking for information on the subject, but they have been only imperfectly answered. But we have made a beginning, and hope, with the aid of the Legislature, to make another year more full and complete returns.

TABLE OF PRODUCTS AND MANUFACTURES.

Compiled from the Report of the Commissioner of Internal Revenue, 1865.

Sulphate of barytes	2,000,900 pounds.
Boots and shoes	103,270 pairs.
Brass and copper manufactured	30,260 pounds.
Coal	69,657 tons.
Cotton, raw	3,680,150 pounds.
Fermented liquors	218,800 barrels.
Iron, manufactured	11,114 tons.
Iron, pig	7,355 tons.
Iron plate, to be added to manufactured iron	3,364 tons.
Iron, to be added to manufactured iron	4,963 tons.
Lead, including that in the form of pigs and manufactured	3,861,132 pounds.
Lead, white	694,300 pounds.

VALUE OF THE PRINCIPAL ARTICLES OF PRODUCTION.

Articles.	1850.	1860.
Flour and meal	$5,124,003	$8,997,083
Lumber	1,479,124	3,704,992
Soap and candles	513,593	1,649,380
Liquors, malt (172,570 barrels)	.....	1,143,450
Liquors, spirit (1,572,200 gallons)	.....	309,000
Iron castings	341,495	1,041,520
Boots and shoes	559,238	868,768
Steam engines, etc	228,675	719,500
Iron, pig (22,000 tons)	.....	575,000
Iron, rolled (4,678 tons)	.....	535,000
Woolen goods*	358,427	525,319
Cotton goods†	142,900	230,000
Illuminating gas	.....	419,306
Lead ore (4,164 tons)	.....	356,640
Agricultural implements	37,550	280,037
Printing‡	22,150	269,749
Furniture	258,391	208,142
Leather	336,861	368,826
Coal (4,164 tons)	.....	8,200
Copper (50 tons)	.....	6,000

*Spindles, 896, and looms, 29; wool used, 856,254 pounds.
†Spindles, 14,500, and looms, —; cotton used, 100,000 pounds.
‡Book, $10,000; job, $119,763; and newspaper, $139,096.

SPECIFIED MANUFACTURES IN DETAIL, 1860.

Articles.	Establishments.	Capital invested.	Material and fuel.	Males employed.	Females employed	Cost of labor.	Value of products.
Soap and candles	12	$620,800	$1,313,328	246	55	.....	$1,649,380
Boots and shoes	277	291,680	326,699	904	43	$331,704	868,768
Woolen goods	99	212,845	230,911	190	14	47,172	425,319
Cotton goods	3	169,000	14,500	85	85	31,080	230,000
Illuminating gas*	2	605,000	48,750	61	.....	30,480	419,306
Furniture	47	128,095	66,052	157	.....	.....	203,142

*Coal used, 15,317 tons; gas manufactured, 101,817,000 feet.
Averaged value of imports, periods of ten years:
From 1830 to 1840, $8,250.
From 1840 to 1850, $102,442.
From 1850 to 1860, $239,818.

TRANSIT LINES OF INTERIOR COMMERCE.

These consist of rivers, railroads and common roads. In most parts of the State the roads may properly come under the head of natural roads, for they are usually laid out by the first traveler who passes from one point to another, and, being followed by the next, come in time to be termed roads, when in reality they are only trails.

In some parts of the State where the iron car of war passed along, the few bridges which had been built were destroyed. Now the traveler is often detained by the rapid rising of the small streams, which, however, soon run down so as to be fordable. The larger streams are usually ferried by small flatboats. Comparatively but very few miles of public road have been surveyed and improved. Fortunately most of the roads follow along the ridges, consequently are easily kept in good condition—indeed they are better roads than are often found in a new country. A summary of the means of transit may be thus expressed:

Number of miles of river navigation 6,799
Number of miles of railroads 91,015

A few plankroads have been made in different parts of the State, but are at present entirely abandoned. St. Louis county has a few miles of macadamized roads. Before the war people were beginning to awake to the importance of better means of transit; several railroads were projected, and common roads were beginning to receive attention. But the great rebellion spoiled all. During its reign more roads were ruined than repaired.

The only canal or improved navigation in the State is the lower part of the Des Moines river improvement, common also to Iowa.

The length of post routes in 1850 and 1860 was as follows:

	Steamboat.	Railroad.	Other roads.	Total.
1850	1156	.....	8546	9702
1860	659	9.4	13,385	14,968

Such is a general view of the means of transit in the State of Missouri, but the amount of navigation centered at St. Louis demands a more extended history.* The first steamboat landed at St. Louis was the General Pike, Reed, master, in 1817 Previous to that time the trade between this place, New Orleans and the intervening ports was carried on in keelboats and other craft propelled by the power of men. A trip from New Orleans to St. Louis then occupied about a hundred days, and was more arduous and dangerous than would now be a voyage to China. In 1819 the first steamboat made a trip up the Missouri as far as Franklin; since then the navigation on the western waters has rapidly increased. St. Louis may be considered the center around which this commerce culminates. To limit the inland navigation of Missouri to the number of miles of navigable waters actually within the State lines would not, by any means, give a fair exhibit of our means of river transit. Although, for light freight and passengers, railroads must supersede every other means of transport, the greater cheapness of river navigation will cause it to retain a large proportion of the heavy freight.

A great change in the navigation of the western waters is beginning to take place. Since the commencement of steam navigation in the west, the same boat has been used for carrying freight and passengers, but as the world progresses changes take place in steam navigation as well as everything else. The experiment is now being tried of separating steamboats into two classes: those for passengers, carrying also some freight, and tugs used exclusively for towing barges loaded with heavy freight, especially grain. By the help of elevators it is believed that grain can be transported from St. Louis with very nearly the same average dispatch as by railroads, and much cheaper than by any other means. A few years will determine the truth or falsity of this proposition.

The following tables give a better view of the real navigation emanating from St Louis than would a statement of the number of miles of river navigation actually within the State

* For our information on this subject we are indebted to Geo. H. Morgan, Secretary Merchants' Exchange.

RIVER DISTANCES FROM ST. LOUIS.

TO NEW ORLEANS.

Jefferson Barracks	12	Island No. 12	280	Milliken's Bend	804
Herculaneum	18	Biddle's Point	285	Pawpaw Island	816
Selma	36	Walker's Bend	303	Mouth Yazoo river	820
Rush Tower	40	Needham's Cut-off	334	Walnut Hills	830
Fort Chartres	50	Hale's Point	334	Vicksburg	832
Brickey's Landing	50	Ashport	342	Warrenton	842
Ste. Genevieve	60	Plump Point	354	Island No. 104	850
Kaskaskia Landing	65	Fulton	364	Carthage	861
Ste. Mary's Landing	75	Mouth Hatchie river	370	Big Black river	885
Rozier's Landing	75	Randolph	375	Coffee's Point	886
Mouth Kaskaskia river	78	Wolf river	440	Grand Gulf	888
Chester	80	Memphis	442	Bayou Pierre	896
Liberty	90	President Island	445	Brainsburg	898
Bailey's Landing	95	Cow Island	447	Petit Gulf	906
Wilkinson's	100	Norfolk	451	Rodney	908
Hat Island	112	Buck Island	461	Cole's Creek	916
Wittenburg	117	Commerce	469	Fairchild's Island	925
Grand Tower	120	Peyton	508	Natchez	939
Evan's Landing	121	Sterling	514	Ellis' Cliff	975
Sheffield's Landing	130	St. Francis river	521	Flying Dutchman	977
Apple Creek	130	Helena	524	Homochitta river	983
Preston's Landing	130	Delta	534	Buffalo river	992
Bennett's Landing	134	Port Royal	540	Fort Adams	993
Vancel's	135	Horseshoe Bend	540	Red river	1005
Neeley's	135	Island No. 63	545	Tunica Bend	1007
Tea Table Bar	135	Victoria	600	Shell Island	1062
Smith's Landing	135	Montgomery's Point	600	Point Coupee	1064
Willard's Landing	135	Mouth White river	604	St. Francisville	1064
Bainbridge	140	Mouth Arkansas river	620	Bayou Sara	1064
Hamburg	140	Napoleon	620	White Cliffs	1075
Mouth Clear Creek	146	Bolivar Courthouse	632	Port Hudson	1075
Cape Girardeau	150	Catfish Point	640	Port Hickory	1077
Thebes	162	Cypress Bend	642	Prophet's Island	1086
Baldwin's	162	Choctaw Bend	658	Baton Rouge	1100
Commerce	165	Spanish Moss Bend	680	Plaquemine	1123
Santa Fe	165	Columbia	685	St. Gabriel's Church	1132

Price's Landing	175	Point Chicot	690	Louisiana Institute	1145
Hunt's Landing	175	Bachelor's Bend	695	Bayou Lafourche	1157
Lane's Landing	175	Island No. 84	698	Donaldsonville	1158
Cairo	200	American Bend	709	Jefferson College	1175
Iron Banks	220	Kentuck Bend	717	Ronnet Quarre Church	1198
Columbus	220	Mather's Bend	727	Red Church	1214
Chalk Banks	223	Princeton	730	Carrollton	1230
Mill's Point	235	Bunche's Bend	740	Lafayette	1237
New Madrid	275	Island No. 94	759	New Orleans	1240
Island No. 11	278	Tompkin's Bend	774		

TO FORT BENTON.

Mouth of Missouri river	20	20	Glasgow	32	264	Fort Pierre	5	1535
Bellefontaine	5	25	Brunswick	35	299	Big Cheyenne	55	1590
Chorbonier	10	35	Lexington	75	374	Mouth Moreau	100	1690
St. Charles	10	45	Kansas City	82	456	Grand river	31	1721
Howard's Bend	5	50	Leavenworth City	39	495	Beaver river	85	1806
Cottleville Landing	10	60	Atchison	37	532	Cannon Ball river	30	1836
Dozier's Landing	7	67	St. Joseph	33	565	Fort Rice	10	1846
Tavern Rock	2	69	Nebraska City	175	740	Hart river	50	1896
Augusta	8	77	Council Bluffs	53	793	Old Fort Clark	65	1961
South Point	6	83	Omaha	14	807	Fort Berthold	59	2020
Washington	2	85	Florence	15	822	Little Missouri	30	2050
St. John's	3	88	Little Sioux river	72	894	White Earth river	85	2135
Miller's Landing	12	100	Sioux City	116	1010	Mouth Yellowstone	135	2270
Pinckney and Griswold	3	103	Vermillion river	140	1150	Fort Union	5	2275
Bates'	1	104	James river	47	1197	Milk river	350	2625
Hermann	16	120	Yanckton	104	1201	Round Bute	135	2760
Mouth of Gasconade	8	128	Bonne Homme Island	16	1217	Dophan's Rapids	152	2912
Portland	12	140	Mouth Niobrarah	22	1239	Mouth Maria	218	3130
St. Aubert	11	151	Yancton Agency	32	1271	Fort Benton	45	3175
Bonnett's	11	162	Fort Randall	14	1285			
Mouth of Osage	2	164	White river	106	1391	FROM FORT BENTON TO		
Mouth of Moreau	5	169	Crow Creek or Usher's Landing	94	1485	Silver City	150	
Jefferson City	5	174	Fort Sully	45	1530	Prickly Pear	170	
Boonville	58	232						

RIVER DISTANCES — CONTINUED.

FROM FORT BENTON TO

Last Chance	171	Virginia City	270	Bosman	351
Deer Lodge City	180	Bannook City	300		
Deer Lodge Diggings	210	Gallatin	350		

ILLINOIS RIVER — ST. LOUIS TO

Martin's Landing, mouth of Illinois river	44	Frederick	139	Rome	252
		Browning	145	Chillicothe	262
Hardin	67.	Sharp's Landing	167	Lacon	272
Columbiana	71	Bath	179	Henry	276
Apple Creek	83.	Havana and Point Isabell	189	Hall's Landing	284
Bridgeport and Bedford	87	Liverpool	201	Hennepin	302
Montezuma	93	Copperas Creek	209	LaSalle and Peru	303
Florence and Harris' Landing	99	Lancaster	211	LaSalla and Ottawa Canal	318
Griggsville	103	Kingston	221	Morris and Ottawa Canal	342
Naples and Perry	109	Pekin	227	Joliet and Ottawa Canal	363
Meredosia	119	Wesley City	230	Lockport and Ottawa Canal	364
Lagrange	129	Peoria	244	Chicago and Ottawa Canal	403
Beardstown	133	Spring Bay	250		

OHIO RIVER — ST. LOUIS TO

Cairo, Ill	175	Louisville, Ky	578	Wheeling, Va	1102
Paducah, Ky	223	Cincinnati, Ohio	720	Pittsburg, Penn	1196

MISSISSIPPI RIVER — ST. LOUIS TO ST. PAUL.

Alton	25		Rock Island	30	347	Victory	5	576
Cap au Gris	40	65	Davenport			Badaxe City	11	587
Clarksville	37	102	LeClaire and Port Byron	18	365	Browneville	12	599

Lousiana	12	114	Princeton and Cordova	6	371	Lacrosse	12	611
Hannibal	30	144	Camanche	10	381	Richmond	16	627
Quincy	20	164	Albany	3	384	Trempelau	5	632
Lagrange	12	176	Clinton	6	390	Winona	13	642
Canton	8	184	Fulton and Lyons	2	392	Fountain City	10	655
Alexandria and Warsaw	20	204	Sabula	20	412	Mount Vernon	11	666
Keokuk	4	208	Savannah	3	415	Minnieski	3	669
Montrose	12	220	Belleview	23	438	Alma	15	684
Nauvoo	3	223	Galena	12	450	Wabasha	9	693
Fort Madison	9	232	Dubuque and Dunleith	20	470	Read's Landing	3	696
Pontoosuc	6	238	Welle's Landing	15	485	North Pepin	5	701
Dallas	2	240	Cassville	15	500	Lake City	7	708
Burlington	15	255	Guttenburg	10	510	Redwing	18	726
Oquawka	15	270	Clayton	12	522	Prescott	30	756
Keithsburg	12	282	McGregor	11	533	Hastings	3	759
New Boston	7	289	Prairie du Chien	3	536	St. Paul	32	791
Port Louisa	10	299	Lansing	30	566	Saint Anthony	14	805
Muscatine	18	317	DeSoto	5	571			

ARKANSAS RIVER—ST. LOUIS TO

Mouth Arkansas river		620	New Gascon	2	153	Terry's	6	288
Red Fork		50	Rob Roy	15	168	Little Rock	10	298
Judge Fletcher's	6	56	Pine Bluff	12	180	Natural Steps	18	316
Arkansas Post	6	62	Pastoria	20	200	Fourche Lava	15	331
Floyd Smith's	6	68	Trepplett's	3	203	Mouth Cadren	25	356
Farleigh's	7	75	Armstrong's	8	211	Lewisberg	20	376
South Bend	5	80	Mrs. Caldwell's	15	236	Petite Jean	25	401
Dr. Jordan's	8	88	Wild Cat	1	237	Galla Rock	5	406
Fairdale	10	98	Joe Nichol's	2	239	Cunningham's	5	411
Douglas	7	105	Lewis' Landing	10	249	Brown's Landing	10	421
	15	120	Cores' Landing	9	258	John Barry's	5	426
Lower Swan Lake	10	130	M Connehay's	11	269	Five Island	6	432
Upper Swan Lake	10	140	Perkin's Landing	3	272	Dardanelle's	6	438
Richland	11	151	Padgett's	10	282	Morristown	3	441

RIVER DISTANCES—CONTINUED.

ARKANSAS RIVER—ST. LOUIS TO

Illinois Bayou	8	449	Roseville	3	511	Pheasant's Landing	40	658
Delaware	9	458	Ozark	10	521	Mouth Canadian	10	668
Mouth Piney	7	465	Crawford's C. H	25	546	Mouth Illinois river	10	678
Shoal creek	8	473	John Degen's Landing	21	567	Weber Falls	6	684
Pittsburg	5	478	Van Buren	5	572	Taylor's Falls	5	689
Spadra Bluff	8	486	Fort Smith	9	581	Frozen Rock	25	714
Morrison's Bluff	5	491	Wilson's Rocks	16	597	Rabbit Shoals	5	719
Patterson's Bluff	6	497	Fort Coffee	4	603	Mouth Grand river	5	724
John Fillsworth's	11	508	Choctaw Agency	15	618	Fort Gibson	4	729

TONNAGE OF DIFFERENT PORTS.

Ports.	No of Steam'rs	Registered Tonnage.	Carrying Capacity.	Value in Dollars.
*Cairo				
Cincinnati	150	30,497.16	42,983	4,134,000
Dubuque	20	3,204.37	5,137	459,500
Evansville	25	3,043.51	5,019	402,600
Galena	20	2,297.77	3,305	435,000
Keokuk	15	1,173.86	2,192	178,500
Louisville	66	14,100.64	25,425	1,994,500
Memphis	60	9,849.62	15,121	1,011,200
New Albany*				
Nashville	12	1,183.06	2,156	108,000
Natchez*				
New Orleans	80	15,860.07	21,625	1,292,000
Paducah	10	2,100.80	2,893	265,000
Pittsburg (81 tugs)	159	33,598.00	24,471	3,920,800
Quincy*				
St. Paul	39	3,088.52	4,973	607,500
St. Louis	210	86,532.34	110,769	8,830,000
Vicksburg*				
Wheeling	44	9,538.11	8,075	918,000
	910	216,067.83	292,144	25,556,600

*No registration at these ports, for want of local inspectors.

Many of the smaller streams in the interior of the State are navigable short distances for light draught steamboats. The Osage is navigable a part of the year to Taborville, in St. Clair county. The Gasconade penetrates the pine region, and with little improvement might be rendered the highway through which the great pine forest of Southern Missouri could find market. White river, in the Southeast, is also navigable, at certain seasons, for boats drawing less than two feet water. By damming and locking, many of these streams could be rendered navigable nearly all summer. This, probably, will be done in the course of time; but at present railroads absorb all the capital available for internal improvements.

For the purpose of exhibiting the amount of river commerce connected with the port of St. Louis, we subjoin the following table:

ARRIVALS AND DEPARTURES OF BOATS AT ST. LOUIS DURING 1866.

	Arrivals.	Departures.
January	68	54
February	128	120
March	312	320
April	334	345
May	316	348
June	308	315
July	287	25(
August	238	247
September	232	254
October	287	329
November	302	312

For more complete accounts of the trade of St. Louis the inquirerer is referred to the report of the St. Louis Chamber of Commerce.

RAILROADS.

In no State of the Union has the railroad interest had more to contend with than in the State of Missouri Lying for many years close on the borders of civilization, it could look only to local trade for support. Commerce always has its centres to which trade flows as naturally as water runs down hill, and like rivers the stream increases as it nears its terminus. Reasoning backward, the stream decreases as we approach its source.

Until this year none of our railroads could depend upon support from any business beyond the limits of the State. Missouri was the "Far West"—slavery existed—capitalists when asked to lend their aid were shy; they could not see the advantages for investment which Missouri offered. An active rival, who let no opportunity escape to enhance his own interest to the detriment of ours, was unsparing in his efforts to blazen his own glories, and prevent the Eastern world from discovering anything valuable beyond the Mississippi river. Yet under all these discouragements our railroads have continued to make pro ress. Most of those begun, have gone on extending their lines, and new ones projected would have commenced work, but just as all seemed prosperous and the ball was fairly in motion, civil war, with devastation following in its train, paralyzed all their efforts. During such a state of things new enterprises were abandoned and old ones languished.

But a fairer prospect is now before us. The Pacific is finished to Kansas. The Southwest Branch is incorporated with the Atlantic and Pacific, and soon the passenger will have a choice of roads to San Francisco.

Above all, Missouri is free; the prejudice which all the world had against us has no longer a cause, and if we are true to ourselves an uninterrupted tide of prosperity awaits us.

The Pacific railroad was the first road commenced and the first finished. The following extracts from its sixteenth annual report will show its condition:

Incorporated March 12, 1849. Authorized capital, $10,000,000. Opened to Cheltenham, March 23, 1852. Amount of State aid, $7,000,000. St. Louis county aid, $700,000. Land sold, 197,209 acres. Entire length from St. Louis to Kansas City, 282 miles. Total cost, $14,382,208. Total earnings for 1866, $1,794,356. Amount received for freight, $859,076. Quantity of fuel consumed in the last year, 24,959 cords. Expense of operating the road per mile, $41 96. Amount of floating debt, $1,250,000.

HISTORY OF THE PACIFIC RAILROAD.

On the 19th of September, 1865, the last rail was laid and spike driven, connecting St. Louis with Kansas City, a distance of two hundred and eighty-three miles, consummating what the road's earliest friends regarded at its inauguration the Alpha and Omega in its progress and completion. It were neither inappropriate nor unprofitable to briefly review its varied histories; for its completion is second to no other artery, natural or artificial, contributing to the material growth and prosperity of our city, if not, indeed, the State itself, who, it must not be forgotten, has, like an indulgent parent, never turned a deaf ear to its necessities.

The completion of this great enterprise is not unlike the Pennsylvania Central, and other great roads of the States to their respective termini, and the business from year to year will disclose its value, as those roads have, in a degree and extent never dreamed of by its most sanguine friends.

Obtaining its charter March 12, 1849, it was not until the 31st of January ensuing that a preliminary organization was effected, at which time the corporators named in the charter subscribed $154,000 of the stock, and it was only a brief interval before it was increased from private sources nearly $500,000. Its first president was Mr. Thomas Allen, now, as then, one of the opulent and enterprising men of the city, and the first engineer, Mr. James P. Kirkwood, was invited from abroad to aid in the surveys, locations and construction.

The city and county of St. Louis respectively subscribed $500,000, while Pettis, Johnson, Moniteau, Jackson, and other interior counties, loaned a helping hand. In the meantime the Congress of the United States donated a land grant to the State of Missouri, to aid in building a road, which was generously turned over to the company, most of which, however, was subsequently allotted to the Southwest Branch.

In addition, the State, as early as February, 1851, loaned its credit in the sum of $2,000,000, and afterward, from time to time, it was increased to $7,000,000.

The location of the first division being effected, it was on the 4th day of July, 1851, that ground was broken by Luther M. Kennett, Esq., then Mayor of the city, thus inaugurating the commencement; and after fourteen years of varied trials and vicissitudes incident and attendant to the success of all great enterprises, the road is completed and operated—"the consummation devoutly to be wished."

Reviewing the past, it is a source of congratulation that this road has been preserved to our own people, and it is due to our several Presidents, its Directors, and a few citizens, who, from year to year, when the state of its finances almost precluded further construction, never abandoning, but, with renewed exertions, barely overcame its perils.

The difficulties incident to organization overcome, the road was operated to Cheltenham, December 23, 1852; to Kirkwood the May following, and to Franklin, the first division, July 23 of the same year. Under the efficient Presidency of Mr. Allen, the section to Washington was operated February 11, 1855.

The year of 1854 was a critical one in the history of the road, and had it not been for the people of St. Louis county generously contributing an additional subscription of $1,200,000, the enterprise must have stopped. At this time, Mr. Allen resigning, Mr. Hudson E. Bridge assumed the Presidency, and work was energetically prosecuted along the whole line to Jefferson City, and was opened to Hermann, August 7, 1855. The financial difficulties overcome by its President and Directors at this period can scarcely be appreciated; sufficient to say, so great were its necessities, that the Directors advanced their

individuel credit for nearly $400,000. The policy of the board prompted unusual activity along the whole line to Jefferson City; among other reasons, with the view of enlisting the influence of members of the Legislature, then about to assemble, for additional aid and favorable legislation, many of whom had never seen a railroad or locomotive.

The ever-memorable Gasconade disaster, happening November 1, 1855, is still fresh in our memory. We here submit the words of the President descriptive of the scene:

"The time had come which had been set apart to witness the celebration of the accomplishment of a great public enterprise, for which we had long been toiling. Hundreds of our best citizens, with joyous countenances and happy hearts, had met to testify by their presence their interest in the event. * * * Nothing occurred to mar the pleasure of the excursion till we reached the Gasconade. Then a crash, a plunge—instantaneous, like the flash of a gun—and that ponderous train, with its precious freight, was a mass of ruins. No eye that witnessed that terrible scene can ever forget it—no pen can adequately describe it. The groans of the dying, the shrieks of the wounded, amid the pelting of the pitiless storm, the lightning's flash, and the deafening roar of the hoarse thunder, as peal after peal was echoed and re-echoed among the hills, formed a scene sufficient to appal the stoutest heart. Thirty-one were killed, and a much larger number wounded."

The President himself went down with the engine to the bed of the stream, bruised and crushed almost to death. Mr. Kirkwood resigning in 1852, Mr. Thomas S. O'Sullivan succeeded him in the position of Chief Engineer. He, also, went down, and was instantly killed. Mr. Charles F. Brown was appointed to the vacancy, and vacating himself in 1856, Mr. Edward Miller succeeded to the office, bringing great ability to the engineering department.

But we pass hurriedly on to escape memories of this horrible event, ever to remain fresh as the trains pass the stream, and historic in the annals of the State.

Scarcely had the wreck of the Gasconade been cleared, when continuous rains carried away bridges, culverts and embankments, almost disheartening its management; but it seems that, notwithstanding its prostrate financial condition and the rebellious elements, all difficulties were overcome, and the locomotive entered the capital March 12, 1856.

Not dismayed by disasters, the work was energetically prosecuted, much of it being heavy rock work, and many streams to bridge, and the road was opened to California May 14, 1858.

Mr. Bridge, who had given his services gratuitously to the company, retired, and was succeeded temporarily by Mr. James H. Lucas, who, in turn, gave place to Mr. William M. McPherson, under whose administration the greater portion of the work between Jefferson City and California was done; abandoning all other business, he gave his exclusive attention to the road, and, like his predecessor, infused great zeal in all its departments. It was during Mr. McPherson's administration that large purchases of iron were made from English manufacturers; visiting the Welsh and English mills, he effected a purchase on time, greatly advantageous to the company.

It was during his service that a line of packets or steamers running in connection with the road from Jefferson City was inaugurated, and this policy greatly increased the receipts of the road. Also, work was vigorously prosecuted from California to Otterville, and energy exhibited to hasten the road's completion.

We must pass by the legislation locating the road inland, instead of its continuing along the banks of the river; remarking, that the subscription incident to the legislation and location of the road never was complied with.

Mr. McPherson was succeeded in the Presidency by Mr. John M. Wimer, who, like his predecessors, brought executive ability to its service, and like its previous managers, found an impoverished treasury. Undismayed, the work continued, and the road was opened to Tipton July 26, 1858, and a small force kept at work westward to Syracuse.

Mr. Wimer in turn gave place to Mr. George R. Taylor, who, with most of the present directors, has continued in the service to the road's completion.

Perhaps, with the exception of the Gasconade accident, the financial condition of the company never had been so deplorable as it was at this time. Assuming control, it was early found that it would require great individual liability, not only to continue the work, but to preserve its credit and save it from forfeiture to the State, as well as to retire a large indebtedness in Europe, to secure which land mortgage bonds had been hypothecated. After investigations, the directors not only agreed to preserve its credit and prosecute the work, but to save it from forfeiture, all of which has been accomplished. The interest on the State loan the ensuing July was met, the English debt paid, and the road opened to Syracuse August 1, 1859.

It is due to history that mention should be made of these facts; and how the directors from that period to this time have labored to complete and equip the road and preserve its credit, none but themselves know.

The legislation of 1859 and 1860, which was obtained after months of unceasing labor, providing for the entire completion of the road, by additional "State aid," was rendered abortive by the veto of Governor Stewart, who most unexpectedly interposed objections to the bill that had never been suggested during its progress. Had the bill become a law, the benefits were incalculable both to the State and company. The road would have been completed before the commencement of civil war in the States, and would have been used by the Government for transporting munitions of war and troops for the defense of not only the country south of the road, but the whole of that vast territory west of the State. Besides, Gen. Price never would have moved on Lexington, nor invaded the State in 1864, and millions of money and thousands of precious lives would have been saved to the country.

In 1860, Mr. Miller retiring from the position, was succeeded by Mr. Thomas McKissock as Chief Engineer, who has contributed no little to the achievement of the end.

Leaving Syracuse the road was opened to Otterville August 24, 1860, Smithton, November 1, 1860, and Sedalia, February, 1861. During these years Jackson county gave an additional subscription of $200,000, and Pettis county $75,000, and with private subscriptions and anticipated earnings the work was prosecuted west of Sedalia along the whole unfinished line to Kansas City.

The inauguration of the rebellion in the spring of 1861 found the trains operated to Sedalia, and work westward progressing.

There the road stopped for nearly two years, and the disturbed condition of the country operated to stop all work on construction.

The capture of Camp Jackson and the flight of the Chief Executive from the capital, was the occasion of the partial destruction of the Osage and Gasconade bridges, as well as those over Gray's creek, west of Jefferson City. These, however, were immediately replaced and repaired, and the road used as a military arm of the Government.

Almost disheartened by the destruction of the company's property, the directors almost despaired of repairing damages and operating the road, much less to continue its construction to completion; yet each assuming for himself great pecuniary obligations, the bridges and other property were replaced and the road finished, and its stock and property preserved to our own people.

The importance and value to the Federal Government in suppressing the rebellion is best told in the language of a journalist:

"The battles of Boonville, Dug Spring and Wilson's Creek, the capture of Lexington, the advance of Fremont's army to the Southwest, and various other movements in the fall of 1861, and the military operations kept up for the whole four years of the war, rendered this road of inestimable service to the Government. The regular passenger trains were run by the company, but on various occasions the whole resources of the road were at the disposal of the Quartermasters."

It was during the session of the Legislature of these years that authority was obtained to mortgage the road from Dresden to Kansas City, and the road was operated to Dresden May 10, 1863. At this time quiet partially prevailed in the interior counties, and the whole line of work was resumed, and Mr. Daniel R. Garrison, Vice President, was placed in charge of the Construction Department, and increased activity pervaded every department.

His great ability and continual presence was cheerfully given to the work, and on July 3, 1864, the road was operated to Warrensburg.

The disastrous effects of the invasion of the State by Gen. Price in 1864 is best told by the same journalist:

"Its effect on the Pacific railroad was disastrous. The road was so much destroyed that, from $118,135 54 earned in September, the receipts fell off in October to $33,489 42, an amount insufficient to pay ordinary running expenses. The rebels never made such clear work of any railroad in their progress through any State held by the national troops as they did in destroying portions of this road."

The bridges destroyed were as follows: Bœuf creek, 230 feet; Big Berger, 190 feet; Little Berger, 90 feet; Hermann creek, 110 feet; Cole creek, 160 feet; Gasconade river, 759 feet (including a draw); Bailey's creek, 110 feet; Osage river, 1,122 feet (including a draw of 180 feet); Moreau creek, 220 feet; Gray's creek, 100 feet; Lamine creek, 163 feet; and two bridges in Jackson county.

The depot buildings, woodsheds, etc., at Franklin, Gray's Summit, South Point, Washington, Miller's Landing, Hermann, Osage, Lookout, California, Syracuse and Otterville were all burned.

At Franklin they also destroyed a machine shop and engine house, and at different points along the road nine water stations, including serious damage to all the stationary engines. Four locomotives were broken and seriously damaged, and thirty-nine freight cars destroyed by burning.

LEGISLATION IN 1864.

One of the most eventful periods in its history, as varied as it has been, presented itself in the winters of 1863 and 1864.

The combined efforts of foreign capital and political influences were invoked with the General Assembly. Money seemed to flow like water at the capital, in feasting members, while the most plausible and astute political sharpers distilled night and day their honied words of love for the people and State.

To meet this emergency, Messrs. H. D. Patterson, Adolphus Meier, and the President and Vice President, were sent to the capital, who, remaining for months, succeeded in defeating this foreign importation of cormorants. In this crisis, delegations or merchants and manufacturers from the city visited the capital, so formidable had the "lobby influence" become.

ST. LOUIS COUNTY LOAN.

Prostrated, with an empty treasury, the directors again were despairing, but the County Court of St. Louis county generously came to its relief, and the creditors of the road being indulgent, it was in March of 1865 Mr. Garrison was enabled to reorganize his forces and renew the work, and along the whole line, building from both ends, having only partial military protection. He was personally present, showing both by example and precept that the work must be finished.

The road was opened to Holden, May 28; Pleasant Hill, July 19; and Independence September 19, 1865, the road having been opened and operated from Kansas City to Independence some months previous; and on the succeeding day, Mr. Garrison and the President came over the whole line of the road, leaving Kansas City at 3 A. M., getting to St. Louis at 5 P. M. of the same day. Such, in brief, are the outlines of its history, and none but those connected with its progress can ever know its dark days, which at times seemed impenetrable. Its importance and value none can estimate, and, as a closing word of its capacity for progressive improvement, the following table of its yearly earnings will disclose, only premising that the road has but one daily passenger and freight train, and operated the whole length October 2, 1865:

EARNINGS OF THE ROAD FROM ITS COMMENCEMENT.

Year ending	December 31, 1852	$ 108 15
"	" 31, 1853	41,323 29
"	February 28, 1855	97,176 39
"	" 28, 1856	330,222 34
"	" 28, 1857	426,285 97
"	" 28, 1858	668,346 59
"	" 28, 1859	674,248 95
"	" 28, 1860	648,600 99
"	" 28, 1861	683,644 28
"	" 28, 1862	457,183 69
"	" 28, 1863	679,956 06
"	" 28, 1864	906,745 95
"	" 28, 1865	1,007,763 47
"	" 28, 1866	1,794,356 22

Since the destruction of the road, bridges, depots, etc., during the invasion of the fall of 1864, we were necessitated to husband every resource to complete the road, and every building that could be dispensed with, and every other outlay that could be postponed, became imperative; so that after rebuilding water tanks and repairing the track and bridges, etc., all the available means were applied to the construction of the road and in adding to the rolling stock, so necessary to operate the same as it progressed; and although strict economy was observed in all departments, yet it will be seen on referring to the accompanying reports that there is a large "floating debt" yet to be provided for, besides large sums of money to pay for engines, coaches and cars now being made, required for its length and business.

SOUTHWEST BRANCH PACIFIC RAILROAD.

This road was finished to Rolla in 1861. Since that time it has remained in statu quo. It penetrates directly into the wilderness, and as there is little hope that the receipts will much more than pay running expenses till it is opened to Springfield, and as the company have had need of all their resources to finish the main line, this road has not advanced beyond its first terminus. It was the first road destroyed by the rebels; this put an end to all hope of further progress, unless the General Government took possession of and finished it for military purposes. This they declined to do. Not being able to meet its engagements, it was forfeited to the State, according to the law in such cases made and provided, on the third of March, 1861. The Governor declining to take possession, it has since been operated by the Pacific Railroad Company. It has lately been sold and is finally incorporated into the new road called the Atlantic and Pacific railroad; work has already been commenced, and thirteen miles more of road will be opened during the month of January, 1867. When this road is finished to the State line, it will open up the immense lead regions of the Southwest, and in a short time the enhanced value of the lead trade will pay for a large part of the expense incurred for its construction. Having been originally chartered as a part of the Pacific road, its statistics are incorporated with those of that road.

IRON MOUNTAIN RAILROAD.

The necessity for this road was felt for many years before it was thought possible to raise money to build a railroad in Missouri, but the vast amount of iron contained in the Iron Mountain and Pilot Knob lay so temptingly at our very doors, and no means of rendering it available, that finally a railroad was determined upon. The company could have had little idea of the task they were undertaking; general financial embarrassment, war and flood conspired against them, but manfully they struggled with adversity, till now, when the road has passed out of their hands, they have the satisfaction of knowing that they made it a

success in spite of man and the elements. Its extension to the southern part of the State is a matter of urgent necessity.

The following statistics were kindly furnished by Mr. Barlow, the former President: Incorporated March 3, 1851; authorized capital, $6,000,000; amount of State aid, $3,500,000; amount of county aid, $1,000,000; opened to Pilot Knob, 1858; miles finished, 86; total cost, $5,500,000; amount received for freight one year, ending first of October, 1865, $200,440 20; amount for passengers, $155,832; quantity of fuel consumed, 8,000 cords; total expenses for operating the road one year, 86 miles, $167,674 20.

CAIRO AND FULTON RAILROAD

Was incorporated February 20, 1853; authorized capital, $1,500,000; amount of State aid, $539,969; amount of county aid, $419,500; debt, $50,000; total cost, $1,008,969; miles finished, 28.

By the time this short distance was finished the company was overwhelmed with debt, and the enterprise languished till the beginning of the war when it stopped entirely. It finally passed into the hands of commissioners, where it remains to be disposed of.

PLATTE COUNTRY RAILROAD.

This road is another instance illustrating the difficulty of building railroads in Missouri; it is one continued struggle from beginning to end; it is a struggle to get the act of incorporation, a struggle against contending interests in the location, and above all, is the arduous task of raising funds in a new country where they are expected to create business, instead of being themselves the result of a necessity for business purposes.

This road was incorporated in 1855. In 1864 and 1865 it was changed to the Weston and Atchison and Atchison and St. Joseph road. Authorized capital, $2,000,000; amount of State aid, $850,000; miles finished, 52.

Its financial embarrassments have been so great that it has not been able to meet its engagements with the State, and has been declared forfeited and offered for sale, which is its present condition.

NORTH MISSOURI RAILROAD.

This road, when finished to the Iowa line, will be one of the most valuable roads in the State—not only valuable to the owners, but to the inhabitants of that part of the State through which it runs. It is located in a part distant from navigable streams, and which, without facilities for transportation, cannot flourish. It is a well settled principle that railroads must mainly rely for profits on their local business, and in this respect no railroad can anticipate a brighter future than the North Missouri.

While most other railroads received some benefits from the war, in the way of transportation of troops, war material, etc., this road got very little of that business to do; in destruction and damage it came in for its full share.

By order of the rebel General Sterling Price, it was partially destroyed in June and July, 1861, and on the 20th of December, 1861, for a hundred miles, every bridge and culvert was broken down, and a perfect wreck made of everything that could be destroyed. In September and October, 1864, two trains of cars and seven depots were burned, and several engines injured.

Near Centralia was perpetrated the foulest murder that even that abandoned wretch, Bill Anderson, was ever guilty of. Twenty-three unarmed Union soldiers, some sick and one on crutches, were stood up in a row before the burning cars and deliberately shot down in cool blood.

These injuries were brought upon the road because it was used for the transportation of United States troops and army stores, yet the company has not received a dollar's remuneration for damages, either by land grants or otherwise.

This road now labors under great disadvantages from being in a measure tributary to the Hannibal and St. Joseph railroad. The directors have great cause to congratulate themselves that though laboring under all the disadvantages of being obliged to compete directly for all through business, and having to encounter all the desolating influences of war in the State, they have maintained their road in good condition, and have been able, from their earnings, to pay for their rolling stock, water stations, depot grounds, etc. When the road is completed there can be no doubt that the net earnings will be materially increased by the natural increase of wealth, population and productiveness which must ever be tributary to it.

When the West Branch is completed so as to meet the Missouri river at Brunswick, Richmond, Livingston and Kansas City, connecting at the latter place with the Pacific railroad; Parkville and Leavenworth in Kansas, where it will meet another stem of the Pacific road; Weston, intersecting with the Platte Country road which is to be extended north, to the Iowa line; with the Pacific road coming in at Atchison, and by means of the Platte Country road, and the Council Bluffs railroad; with the Pacific road coming in at Omaha and Council Bluffs, and through the St. Joseph and Council Bluffs road with Sioux City, and through the main line from Macon to Iowa, connecting with all the railroads of Iowa and Minnesota, and giving connection with Dubuque and St. Paul, all of the same gauge, no limit can be placed upon the probable receipts.

There is no road in the country which has a richer territory, locally tributary to it, in all its length, nor one which has more favorable connections for increasing its business.

For a more complete statement of the condition and prospects of this road we must refer to the able report of the directors made in April, 1866.

The following statistics of the road have been politely furnished us by Mr. George H. Blood, Secretary.

STATISTICS OF THE ROAD.

Amount of capitol stock paid in	$ 2,469,500
Funded debt	4,350,000
Total cost of construction	6,823,000
Equipment	825,000
Length of road in miles	170
Number of engines	26
Number of first class passenger cars, 20, second class, 7	27
Number of baggage, mail and express cars	9
Number of freight and other cars	375
Number of miles annually run by passenger trains	126,000
Number of passengers carried	166,392
Average rate of speed, including stops, passenger trains (miles per hour)	19
Freight (miles per hour)	8
Number of miles annually run by freight trains	216,000
Number of tons of freight annually carried	76,600
Annual expense of road way	$ 205,083
Annual expense of equipment	155,903
Annual expense of operating the road	391,300
Earnings from passengers	345,595
Earnings from freight	418,678
Earnings from express companies	29,444
Earnings from mail and other sources	26,370
Number of passengers killed	None.
Number of passengers wounded	None.

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Annual expense of operating the road	391,300
Earnings from passengers	345,595
Earnings from freight	418,678
Earnings from express companies	29,444
Earnings from mail and other sources	26,370
Number of passengers killed	None.
Number of passengers wounded	None.

HANNIBAL AND ST. JOSEPH RAILROAD.

The following are all the statistics of this road which we have been able to obtain: Incorporated February 16, 1847; amount of State aid, $3,000,000; amount of county aid, $200,000; opened through, February, 1859; miles finished, 206 2-10; total cost, $15,213,029 43; amount of debt funded, $8,695,850; number of accidents not stated.

SYNOPSIS OF RAILROADS.

Names.	Points connected.	Miles.	Cost.
Cairo & Fulton	Bird's Point and Buffington	37.00	$ 1,213,497
Hannibal & St. Joseph	Hannibal & St. Joseph	206.20	12,364,139
North Missouri	St. Louis to Macon City	168.80	6,966,144
Pacific	St. Louis to Kansas City	283.00	11,233,510
South West Branch	St. Louis to Rolla	77.50	3,872,133
Platte Country	St. Joseph to Weston	37.00	925,000
Quincy & Palmyra	Palmyra to Houston	10.50	250,000
St. Louis & Iron Mountain	St. Louis to Pilot Knob	86.50	4,356,819
Potosi Branch	Potosi to Mineral Point	3.65	.....*
	Total	910.15	$ 41,181,233

* Cost included in cost of St. Louis and Iron Mountain.

ST. LOUIS COUNTY STATISTICS.

DISTRICTS.		IMPROVEMENTS BEFORE SEPTEMBER, 1865.											
		HOUSES.						BARNS AND STABLES.					
		Brick.		Frame.		Log.		Brick.		Frame.		Log.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3rd Rep. Dist..	1,625	$1,655,185	263	$83,185	.....	.....	.....	.....	.....	.....	.....	.....
II	City of St. Louis—4th and 5th Rep. Dist..	2,163	3,575,455	370	86,900	.....	.....	.....	.....	.....	.....	.....	.....
III	City of St. Louis—6th and 7th Rep. Dist.	3,331	7,191,855	237	85,715	.....	.....	.....	.....	.....	.....	.....	.....
IV	City of St. Louis—8th and 9th Rep. Dist..	2,681	5,125,880	453	82,210	.....	.....	.....	.....	.....	.....	.....	.....
V	City of St. Louis—10th and 11th Rep. Dist	2,145	2,540,850	687	169,280	.....	.....	.....	.....	.....	.....	.....	.....
VI	City of St. Louis—12th and 13th Rep. Dist	1,436	1,407,980	697	201,605	.....	.....	.....	.....	.....	.....	.....	.....
	City of St. Louis.....	13,381	21,497,205	2,707	708,895	.....	.....	.....	.....	.....	.....	.....	.....
VII	St. Ferdinand township.....	115	119,900	245	78,525	194	$26,790	2	$800	390	$36,955	137	$8,875
VIII	Central township.....	119	147,350	371	169,905	179	23,965	1	400	372	67,325	50	2,390
IX	Bonhomme township.....	40	51,700	224	143,500	303	54,480	4	1,300	175	25,670	328	26,760
X	Meramec township.....	7	4,550	65	28,525	251	42,515	.....	.....	50	11,780	267	18,045
XI	Carondelet township.....	395	540,567	610	189,685	340	39,695	35	2,053	131	24,600	386	27,645
XII	St. Louis—outside of city limits.....	290	441,250	492	152,925	.....	.....	54	12,390	494	51,585	.....	.....
	Townships—outside of city limits.....	966	1,305,315	2,007	763,065	1,267	187,445	96	16,943	1,612	217,915	1,168	83,715
	Total of county.....	14,347	$22,802,520	4,714	$1,471,960	1,267	$187,445	96	$16,943	1,612	$217,915	1,168	$83,715

ST. LOUIS COUNTY STATISTICS—CONTINUED.

No.	Districts. Designation.	NEW STRUCTURES FINISHED FROM SEPTEMBER, 1865, TO SEPTEMBER, 1866.											
		DWELLINGS.						BARNS AND STABLES.					
		Brick.		Frame.		Log.		Brick.		Frame.		Log.	
		No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. Dist..	165	$154,380	64	$23,120	.....	.....	.....	.....	.....	.....	.....	.....
II	City of St. Louis—4th and 5th Rep. Dist.	150	127,650	36	7,050	.....	.....	.....	.....	.....	.....	.....	.....
III	City of St. Louis—6th and 7th Rep. Dist.	180	404,880	57	17,900	.....	.....	.....	.....	.....	.....	.....	.....
IV	City of St. Louis—8th and 9th Rep. Dist.	136	306,980	8	1,000	.....	.....	.....	.....	.....	.....	.....	.....
V	City of St. Louis—10th and 11th Rep. Dis	153	221,450	54	13,775	.....	.....	.....	.....	.....	.....	.....	.....
VI	City of St. Louis—12th and 13th Rep. Dis	118	125,350	44	9,305	.....	.....	.....	.....	.....	.....	.....	.....
	City of St. Louis	902	1,340,690	263	72,150	.....	.....	.....	.....	.....	.....	.....	.....
VII	St. Ferdinand township	2	4,000	8	4,125	2	$300	.....	.....	5	$225	1	$50
VIII	Central township	1	3,000	20	11,600	3	275	.....	.....	9	2,300	1	50
IX	Bonhomme township	.....	.....	3	1,200	5	850	.....	.....	2	400	2	200
X	Meramec township	.....	.....	5	1,050	26	4,425	.....	.....	6	1,550	24	1,965
XI	Carondelet township	19	20,100	116	40,405	3	300	3	$1,015	74	9,430	3	225
XII	St. Louis—outside of city limits	36	38,880	79	37,450	.....	.....	8	10,300	35	9,660	.....	.....
	Townships—outside of city limits	58	65,980	231	95,830	39	6,150	11	11,315	131	23,565	31	2,490
	Total of county	960	$1,406,670	494	$167,980	39	$6,150	11	$11,315	131	$23,565	31	$2,490

No.	DISTRICTS. Designation.	NEW STRUCTURES FINISHED, ETC.—CONTINUED. MILLS AND FACTORIES. Brick. No.	Brick. Value.	Frame. No.	Frame. Value.	SCHOOLS AND CHURCHES. Brick. No.	Brick. Value.	Frame. No.	Frame. Value.	Log. No.	Log. Value.
I	City of St. Louis—2d and 3d Representative District	6	$37,200	.....	.....	1	$3,000	.....	.....	.....	.....
II	City of St. Louis—4th and 5th Representative District	3	6,500	2	$3,300	2	6,500	.....	.....	.....	.....
III	City of St. Louis—6th and 7th Representative District	1	20,000	.....	.....	4	48,000	.....	.....	.....	.....
IV	City of St. Louis—8th and 9th Representative District	7	9,100	.....	.....	2	27,500	.....	.....	.....	.....
V	City of St. Louis—10th and 11th Representative District	1	1,000	.....	.....	1	5,000	.....	.....	.....	.....
VI	City of St. Louis—12th and 13th Representative District	.....	.....	.....	.....	1	4,000	.....	.....	.....	.....
	City of St. Louis	18	73,800	2	3,300	11	94,000	.....	.....	.....	.....
VII	St. Ferdinand township	1	3,000	.....	.....	2	20,800	.....	.....	.....	.....
VIII	Central township	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IX	Bonhomme township	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
X	Meramec township	.....	.....	.....	.....	.....	.....	.....	.....	1	$200
XI	Carondelet township	.....	.....	2	1,250	11	14,900	2	$600	2	300
XII	St. Louis—outside of city limits	1	1,500	.....	.....	1	2,000	.....	.....	.....	.....
	Townships—outside of city limits	2	4,500	2	1,250	14	37,700	2	600	3	500
	Total of county	20	$78,300	4	$4,550	25	$131,700	2	$600	3	$500

NUMBER AND VALUE OF IMPROVEMENTS AND NEW STRUCTURES.

DISTRICTS.		IMPROVEMENTS.				NEW STRUCTURES.							
		HOUSES.		BARNS.		DWELLINGS.		BARNS.		FACTORIES.		SCHOOLS AND CHURCHES.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. District	1,888	$1,738,370	.....	.....	229	$177,500	.....	.....	6	$37,200	1	$3,000
II	City of St. Louis—4th and 5th Rep. Dist.	2,533	3,662,355	.....	.....	186	134,700	.....	.....	5	9,800	2	6,500
III	City of St. Louis—6th and 7th Rep. Dist.	3,568	7,277,570	.....	.....	237	422,780	.....	.....	1	20,000	4	48,000
IV	City of St. Louis—8th and 9th Rep. Dist.	3,134	5,208,090	.....	.....	144	307,980	.....	.....	7	9,100	2	27,500
V	City of St. Louis—10th and 11th Rep. Dist.	2,832	2,710,130	.....	.....	207	235,225	.....	.....	1	1,000	1	5,000
VI	City of St. Louis—12th and 13th Rep. Dist.	2,133	1,609,585	.....	.....	162	134,655	.....	.....	.....	.....	1	4,000
	City of St. Louis	16,088	22,206,100	.....	.....	1,165	1,412,840	.....	.....	20	77,100	11	94,000
VII	St. Ferdinand township	554	225,215	529	$46,630	12	8,425	6	$275	1	3,000	2	20,800
VIII	Central township	669	341,220	423	70,115	24	14,875	10	2,350	.....	.....	.....	.....
IX	Bonhomme township	567	249,680	507	53,720	8	2,050	4	600	.....	.....	.....	.....
X	Meramec township	323	75,590	317	29,825	31	5,475	36	3,515	.....	.....	1	200
XI	Carondelet township	1,345	769,945	552	54,308	138	60,805	80	10,670	2	1,250	15	15,800
XII	St. Louis—outside of city limits	782	594,175	548	63,975	115	76,330	43	19,960	1	1,500	1	2,000
	Townships—outside of city limits	4,240	2,255,825	2,876	318,573	328	167,960	173	37,370	4	5,750	19	38,800
	Total county	20,328	$24,461,925	2,876	$318,573	1,493	$1,580,800	173	$37,370	24	$82,850	30	$132,800

No.	Designation.	IMPROVEMENTS.						NEW STRUCTURES.					
		BRICK.		FRAME.		LOG.		BRICK.		FRAME.		LOG.	
		No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. District	1,625	$1,655,185	263	$83,185	.....	.....	172	$194,580	64	$23,120	.....	.....
II	City of St. Louis—4th and 5th Rep. Dist..	2,163	3,575,455	370	86,900	.....	.....	155	140,650	38	10,350	.....	.....
III	City of St. Louis—6th and 7th Rep. Dist..	3,331	7,191,855	237	85,715	.....	.....	185	472,880	57	17,900	.....	.....
IV	City of St. Louis—8th and 9th Rep. Dist..	2,681	5,125,880	453	82,210	.....	.....	145	343,580	8	1,000	.....	.....
V	City of St. Louis—10th and 11th Rep. Dist	2,145	2,540,850	687	169,280	.....	.....	155	227,450	54	13,775	.....	.....
VI	City of St. Louis—12th and 13th Rep. Dist	1,436	1,407,980	697	201,605	.....	.....	119	129,350	44	9,305	.....	.....
	City of St. Louis.....	13,381	21,497,205	2,707	708,895	.....	.....	931	1,508,490	265	75,450	.....	.....
VII	St. Ferdinand township.....	117	120,700	635	115,480	331	$35,665	5	27,800	13	4,350	3	$350
VIII	Central township.....	120	147,750	743	237,230	229	26,355	1	3,000	29	13,900	4	325
IX	Bonhomme township.....	44	53,000	399	169,170	631	81,240	.....	.....	5	1,600	7	1,050
X	Meramec township.....	7	4,550	115	40,305	518	60,560	.....	.....	11	2,600	51	6,590
XI	Carondelet township.....	430	542,618	741	214,285	726	67,340	33	36,015	194	51,685	8	825
XII	St. Louis—outside of city limits.....	344	453,640	986	204,510	.....	.....	46	52,680	114	47,110	.....	.....
	Townships—outside of city limits.....	1,062	1,322,258	3,619	980,980	2,435	271,160	85	119,495	366	121,245	73	9,140
	Total county.....	14,443	$22,819,463	6,326	$1,689,875	2,435	$271,160	1,016	$1,627,985	631	$196,695	73	9,140

NUMBER AND VALUE OF IMPROVEMENTS AND NEW STRUCTURES.

DISTRICTS.		IMPROVEMENTS.				NEW STRUCTURES.							
		HOUSES.		BARNS.		DWELLINGS.		BARNS.		FACTORIES.		SCHOOLS AND CHURCHES.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. District	1,888	$1,738,370	.....	.....	229	$177,500	.....	.....	6	$37,200	1	$3,000
II	City of St. Louis—4th and 5th Rep. Dist.	2,533	3,662,355	.....	.....	186	134,700	.....	.....	5	9,800	2	6,500
III	City of St. Louis—6th and 7th Rep. Dist.	3,568	7,277,570	.....	.....	237	422,780	.....	.....	1	20,000	4	48,000
IV	City of St. Louis—8th and 9th Rep. Dist..	3,134	5,208,090	.....	.....	144	307,980	.....	.....	7	9,100	2	27,500
V	City of St. Louis—10th and 11th Rep. Dist.	2,832	2,710,130	.....	.....	207	235,225	.....	.....	1	1,000	1	5,000
VI	City of St. Louis—12th and 13th Rep. Dist.	2,133	1,609,585	.....	.....	162	134,655	.....	.....	.....	.....	1	4,000
	City of St. Louis	16,088	22,206,100	.....	.....	1,165	1,412,840	.....	.....	20	77,100	11	94,000
VII	St. Ferdinand township	554	225,215	529	$46,630	12	8,425	6	$275	1	3,000	2	20,800
VIII	Central township	669	341,220	423	70,115	24	14,875	10	2,350	.....	.....	.....	.....
IX	Bonhomme township	567	249,680	507	53,720	8	2,050	4	600	.....	.....	.....	.....
X	Meramec township	323	75,590	317	29,825	31	5,475	30	3,515	.....	.....	1	200
XI	Carondelet township	1,345	769,945	552	54,308	138	60,805	80	10,670	2	1,250	15	15,800
XII	St. Louis—outside of city limits	782	594,175	548	63,975	115	76,330	43	19,960	1	1,500	1	2,000
	Townships—outside of city limits	4,240	2,255,825	2,876	318,573	328	167,960	173	37,370	4	5,750	19	38,800
	Total county	20,328	$24,461,925	2,876	$318,573	1,493	$1,580,800	173	$37,370	24	$82,850	30	$132,800

DISTRICTS.		IMPROVEMENTS.						NEW STRUCTURES.					
		BRICK.		FRAME.		LOG.		BRICK.		FRAME.		LOG.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. District	1,625	$1,655,185	263	$83,185	.....	.....	172	$194,580	64	$23,120	.....	.....
II	City of St. Louis—4th and 5th Rep. Dist..	2,163	3,575,455	370	86,900	.....	.....	155	140,650	38	10,350	.....	.....
III	City of St. Louis—6th and 7th Rep. Dist..	3,331	7,191,855	237	85,715	.....	.....	185	472,880	57	17,900	.....	.....
IV	City of St. Louis—8th and 9th Rep. Dist..	2,681	5,125,880	453	82,210	.....	.....	145	343,580	8	1,000	.....	.....
V	City of St. Louis—10th and 11th Rep. Dist	2,145	2,540,850	687	169,280	.....	.....	155	227,450	54	13,775	.....	.....
VI	City of St. Louis—12th and 13th Rep. Dist	1,436	1,407,980	697	201,605	.....	.....	119	129,350	44	9,305	.....	.....
	City of St. Louis.....	13,381	21,497,205	2,707	708,895	.....	.....	931	1,508,490	265	75,450	.....	.....
VII	St. Ferdinand township.....	117	120,700	635	115,480	331	$35,665	5	27,800	13	4,350	3	$350
VIII	Central township.....	120	147,750	743	237,230	229	26,355	1	3,000	29	13,900	4	325
IX	Bonhomme township.....	44	53,000	399	169,170	631	81,240	.....	.....	5	1,600	7	1,050
X	Meramec township.....	7	4,550	115	40,305	518	60,560	.....	.....	11	2,600	51	6,590
XI	Carondelet township.....	430	542,618	741	214,285	726	67,340	33	36,015	194	51,685	8	825
XII	St. Louis—outside of city limits.....	344	453,640	986	204,510	.....	.....	46	52,680	114	47,110	.....	.....
	Townships—outside of city limits.....	1,062	1,322,258	3,619	980,980	2,435	271,160	85	119,495	366	121,245	73	9,140
	Total county.....	14,443	$22,819,463	6,326	$1,689,875	2,435	$271,160	1,016	$1,627,985	631	$196,695	73	9,140

NUMBER AND VALUE OF IMPROVEMENTS AND NEW STRUCTURES—CONTINUED.

DISTRICTS.		Improvements and new Structures.						Improvements.		New Structures.		Improvements and new structures.	
		Brick.		Frame.		Log.		Total.		Total.		Total.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	St. Louis—2d and 3d Rep. Dist..	1,797	$1,849,765	327	$106,305	.....	.....	1,888	$1,738,370	236	$217,700	2,124	$1,956,070
II	St. Louis—4th and 5th Rep. Dist.	2,318	3,716,105	408	97,250	.....	.....	2,533	3,662,355	193	151,000	2,726	3,813,355
III	St. Louis—6th and 7th Rep. Dist.	3,516	7,664,735	294	103,615	.....	.....	3,568	7,277,570	242	490,780	3,810	7,768,350
IV	St. Louis—8th and 9th Rep. Dist.	2,826	5,469,460	461	83,210	.....	.....	3,134	5,208,090	153	344,580	3,287	5,552,670
V	St. Louis—10th and 11th Rep. Dist	2,300	2,768,300	741	183,055	.....	.....	2,832	2,710,130	209	241,225	3,041	2,951,355
VI	St. Louis—12th and 13th Rep. Dist	1,555	1,537,330	741	210,910	.....	.....	2,133	1,609,585	163	138,655	2,296	1,748,240
	City of St. Louis.....	14,312	23,005,695	2,972	784,345	.....	.....	16,088	22,206,100	1,196	1,583,940	17,284	23,790,940
VII	St. Ferdinand township.....	122	148,500	648	119,830	334	$36,015	1,083	271,845	21	32,500	1,104	304,345
VIII	Central township.....	121	150,750	772	251,130	233	26,680	1,092	411,335	34	17,225	1,126	428,560
IX	Bonhomme township.....	41	53,000	404	170,770	638	82,290	1,074	303,410	12	2,650	1,086	306,060
X	Meramec township.....	7	4,550	126	42,905	569	67,150	640	105,415	62	9,190	702	114,605
XI	Carondelet township.....	463	578,633	935	265,970	734	68,165	1,897	824,243	235	88,525	2,132	912,768
XII	St. Louis—outside of city limits..	390	506,320	1,100	251,620	.....	.....	1,330	658,150	160	99,790	1,490	757,940
	Townships—outside city limits.	1,147	1,441,753	3,985	1,102,225	2,508	280,300	7,116	2,574,398	524	249,880	7,640	2,824,278
	Total county.....	15,459	$24,447,448	6,957	$1,886,570	2,508	$280,300	23,204	$24,780,498	1,720	$1,833,820	24,924	$26,614,318

ANIMAL PRODUCTS OF ST. LOUIS COUNTY.

No.	Designation.	ANIMAL PRODUCTS.														
		NEAT CATTLE.								HORSES.				MULES.	
		Oxen.	Milch Cows.			Calves	Beeves.		Stock	Work.	Brood	Stock.	Colts.	Work.	Colts.
		No.	No.	Butter lbs.	Cheese. lbs.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
-VI.	City of St. Louis	1	3,574	.....	.....	.....	.....	.....	.....	6,477	...	.....	.....	1,972	.....
VII.	St. Ferdinand Township	46	1,276	43,840	.....	538	1	.....	2	1,059	418	26	251	350	30
VIII.	Central Township	34	2,459	80,283	.....	617	677	290,800	248	1.508	78	67	198	303	26
IX.	BonhommeTownship	92	1,260	45,090	2,500	546	1	800	487	1,077	10	98	158	251	41
X.	Meramec Township	91	619	24,200	.....	434	102	23,705	481	444	170	70	126	106	37
XI.	Carondelet Township	23	1,668	19,622	8	720	.....	.....	.....	1,234	79	6	195	131	23
XII.	St. Louis Township, outside of city limits	5	1,680	150	.....	151	1	.....	.....	754	.....	6	15	98	4
	Total	291	12,536	213,185	2,508	3,006	782	315,305	1,218	12,553	755	273	943	3,211	161

ST. LOUIS COUNTY STATISTICS—CONTINUED.

DISTRICTS.		NEW STRUCTURES FINISHED FROM SEPTEMBER, 1865, TO SEPTEMBER, 1866.											
		DWELLINGS.						BARNS AND STABLES.					
		Brick.		Frame.		Log.		Brick.		Frame.		Log.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. Dist..	165	$154,380	64	$23,120	.....	.....	.....	.....	.....	.....	.....	.....
II	City of St. Louis—4th and 5th Rep. Dist.	150	127,650	36	7,050	.....	.....	.....	.....	.....	.....	.....	.....
III	City of St. Louis—6th and 7th Rep. Dist.	180	404,880	57	17,900	.....	.....	.....	.....	.....	.....	.....	.....
IV	City of St. Louis—8th and 9th Rep. Dist.	136	306,980	8	1,000	.....	.....	.....	.....	.....	.....	.....	.....
V	City of St. Louis—10th and 11th Rep. Dis	153	221,450	54	13,775	.....	.....	.....	.....	.....	.....	.....	.....
VI	City of St. Louis—12th and 13th Rep. Dis	118	125,350	44	9,305	.....	.....	.....	.....	.....	.....	.....	.....
	City of St. Louis	902	1,340,690	263	72,150	.....	.....	.....	.....	.....	.....	.....	.....
VII	St. Ferdinand township	2	4,000	8	4,125	2	$300	.....	.....	5	$225	1	$50
VIII	Central township	1	3,000	20	11,600	3	275	.....	.....	9	2,300	1	50
IX	Bonhomme township	.....	.....	3	1,200	5	850	.....	.....	2	400	2	200
X	Meramec township	.....	.....	5	1,050	26	4,425	.....	.....	6	1,550	24	1,965
XI	Carondelet township	19	20,100	116	40,405	3	300	3	$1,015	74	9,430	3	225
XII	St. Louis—outside of city limits	36	38,880	79	37,450	.....	.....	8	10,300	35	9,660	.....	.....
	Townships—outside of city limits	58	65,980	231	95,830	39	6,150	11	11,315	131	23,565	31	2,490
	Total of county	960	$1,406,670	494	$167,980	39	$6,150	11	$11,315	131	$23,565	31	$2,490

No.	Designation.	NEW STRUCTURES FINISHED, ETC.—CONTINUED.									
		MILLS AND FACTORIES.				SCHOOLS AND CHURCHES.					
		Brick.		Frame.		Brick.		Frame.		Log.	
		No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Representative District	6	$37,200	.....	.....	1	$3,000	.....	.....	.....	.....
II	City of St. Louis—4th and 5th Representative District	3	6,500	2	$3,300	2	6,500	.....	.....	.....	.....
III	City of St. Louis—6th and 7th Representative District	1	20,000	.....	.....	4	48,000	.....	.....	.....	.....
IV	City of St. Louis—8th and 9th Representative District	7	9,100	.....	.....	2	27,500	.....	.....	.....	.....
V	City of St. Louis—10th and 11th Representative District	1	1,000	.....	.....	1	5,000	.....	.....	.....	.....
VI	City of St. Louis—12th and 13th Representative District	.....	.....	.....	.....	1	4,000	.....	.....	.....	.....
	City of St. Louis	18	73,800	2	3,300	11	94,000	.....	.....	.....	.....
VII	St. Ferdinand township	1	3,000	.....	.....	2	20,800	.....	.....	.....	.....
VIII	Central township	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IX	Bonhomme township	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
X	Meramec township	.....	.....	.....	.....	.....	.....	.....	.....	1	$200
XI	Carondelet township	.....	.....	2	1,250	11	14,900	2	$600	2	300
XII	St. Louis—outside of city limits	1	1,500	.....	.....	1	2,000	.....	.....	.....	.....
	Townships—outside of city limits	2	4,500	2	1,250	14	37,700	2	600	3	500
	Total of county	20	$78,300	4	$4,550	25	$131,700	2	$600	3	$500

NUMBER AND VALUE OF IMPROVEMENTS AND NEW STRUCTURES.

DISTRICTS.		IMPROVEMENTS.				NEW STRUCTURES.							
		HOUSES.		BARNS.		DWELLINGS.		BARNS.		FACTORIES.		SCHOOLS AND CHURCHES.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. District	1,888	$1,738,370	.....	.....	229	$177,500	.....	.....	6	$37,200	1	$3,000
II	City of St. Louis—4th and 5th Rep. Dist.	2,533	3,662,355	.....	.....	186	134,700	.....	.....	5	9,800	2	6,500
III	City of St. Louis—6th and 7th Rep. Dist.	3,568	7,277,570	.....	.....	237	422,780	.....	.....	1	20,000	4	48,000
IV	City of St. Louis—8th and 9th Rep. Dist.	3,134	5,208,090	.....	.....	144	307,980	.....	.....	7	9,100	2	27,500
V	City of St. Louis—10th and 11th Rep. Dist.	2,832	2,710,130	.....	.....	207	235,225	.....	.....	1	1,000	1	5,000
VI	City of St. Louis—12th and 13th Rep. Dist.	2,133	1,609,585	.....	.....	162	134,655	.....	.....	.....	.....	1	4,000
	City of St. Louis	16,088	22,206,100	.....	.....	1,165	1,412,840	.....	.....	20	77,100	11	94,000
VII	St. Ferdinand township	554	225,215	529	$46,630	12	8,425	6	$275	1	3,000	2	20,800
VIII	Central township	669	341,220	423	70,115	24	14,875	10	2,350	.....	.....	.....	.....
IX	Bonhomme township	567	249,680	507	53,720	8	2,050	4	600	.....	.....	.....	.....
X	Meramec township	323	75,590	317	29,825	31	5,475	30	3,515	.....	.....	1	200
XI	Carondelet township	1,345	769,945	552	54,308	138	60,805	80	10,670	2	1,250	15	15,800
XII	St. Louis—outside of city limits	782	594,175	548	63,975	115	76,330	43	19,960	1	1,500	1	2,000
	Townships—outside of city limits	4,240	2,255,825	2,876	318,573	328	167,960	173	37,370	4	5,750	19	38,800
	Total county	20,328	$24,461,925	2,876	$318,573	1,493	$1,580,800	173	$37,370	24	$82,850	30	$132,800

DISTRICTS.		IMPROVEMENTS.						NEW STRUCTURES.					
		BRICK.		FRAME.		LOG.		BRICK.		FRAME.		LOG.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	City of St. Louis—2d and 3d Rep. District	1,625	$1,655,185	263	$83,185	.....	.....	172	$194,580	64	$23,120	.....	.....
II	City of St. Louis—4th and 5th Rep. Dist..	2,163	3,575,455	370	86,900	.....	.....	155	140,650	38	10,350	.....	.....
III	City of St. Louis—6th and 7th Rep. Dist..	3,331	7,191,855	237	85,715	.....	.....	185	472,880	57	17,900	.....	.....
IV	City of St. Louis—8th and 9th Rep. Dist..	2,681	5,125,880	453	82,210	.....	.....	145	343,580	8	1,000	.....	.....
V	City of St. Louis—10th and 11th Rep. Dist	2,145	2,540,850	687	169,280	.....	.....	155	227,450	54	13,775	.....	.....
VI	City of St. Louis—12th and 13th Rep. Dist	1,436	1,407,980	697	201,605	.....	.....	119	129,350	44	9,305	.....	.....
	City of St. Louis.....	13,381	21,497,205	2,707	708,895	.....	.....	931	1,508,490	265	75,450	.....	.....
VII	St. Ferdinand township.....	117	120,700	635	115,480	331	$35,665	5	27,800	13	4,350	3	$350
VIII	Central township.....	120	147,750	743	237,230	229	26,355	1	3,000	29	13,900	4	325
IX	Bonhomme township.....	44	53,000	399	169,170	631	81,240	.....	....	5	1,600	7	1,050
X	Meramec township.....	7	4,550	115	40,305	518	60,560	.....	....	11	2,600	51	6,590
XI	Carondelet township.....	430	542,618	741	214,285	726	67,340	33	36,015	194	51,685	8	825
XII	St. Louis—outside of city limits.....	344	453,640	986	204,510	.....	.....	46	52,680	114	47,110	.....	.....
	Townships—outside of city limits.....	1,062	1,322,258	3,619	980,980	2,435	271,160	85	119,495	366	121,245	73	9,140
	Total county.....	14,443	$22,819,463	6,326	$1,689,875	2,435	$271,160	1,016	$1,627,985	631	$196,695	73	9,140

NUMBER AND VALUE OF IMPROVEMENTS AND NEW STRUCTURES—CONTINUED.

DISTRICTS.		Improvements and new Structures.						Improvements.		New Structures.		Improvements and new structures.	
		Brick.		Frame.		Log.		Total.		Total.		Total.	
No.	Designation.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
I	St. Louis—2d and 3d Rep. Dist..	1,797	$1,849,765	327	$106,305	.....	.....	1,888	$1,738,370	236	$217,700	2,124	$1,956,070
II	St. Louis—4th and 5th Rep. Dist.	2,318	3,716,105	408	97,250	.....	.....	2,533	3,662,355	193	151,000	2,726	3,813,355
III	St. Louis—6th and 7th Rep. Dist.	3,516	7,664,735	294	103,615	.....	.....	3,568	7,277,570	242	490,780	3,810	7,768,350
IV	St. Louis—8th and 9th Rep. Dist.	2,826	5,469,460	461	83,210	.....	.....	3,134	5,208,090	153	344,580	3,287	5,552,670
V	St. Louis—10th and 11th Rep. Dist	2,300	2,768,300	741	183,055	.....	.....	2,832	2,710,130	209	241,225	3,041	2,951,355
VI	St. Louis—12th and 13th Rep. Dist	1,555	1,537,330	741	210,910	.....	.....	2,133	1,609,585	163	138,655	2,296	1,748,240
	City of St. Louis.....	14,312	23,005,695	2,972	784,345	.....	.....	16,088	22,206,100	1,196	1,583,940	17,284	23,790,940
VII	St. Ferdinand township.....	122	148,500	648	119,830	334	$36,015	1,083	271,845	21	32,500	1,104	304,345
VIII	Central township.....	121	150,750	772	251,130	233	26,680	1,092	411,335	34	17,225	1,126	428,560
IX	Bonhomme township.....	44	53,000	404	170,770	638	82,290	1,074	303,410	12	2,650	1,086	306,060
X	Meramec township.....	7	4,550	126	42,905	569	67,150	640	105,415	62	9,190	702	114,605
XI	Carondelet township.....	463	578,633	935	265,970	734	68,165	1,897	824,243	235	88,525	2,132	912,768
XII	St. Louis—outside of city limits..	390	506,320	1,100	251,620	.....	.....	1,330	658,150	160	99,790	1,490	757,940
	Townships—outside city limits.	1,147	1,441,753	3,985	1,102,225	2,508	280,300	7,116	2,574,398	524	249,880	7,640	2,824,278
	Total county.....	15,459	$24,447,448	6,957	$1,886,570	2,508	$280,300	23,204	$24,780,498	1,720	$1,833,820	24,924	$26,614,318

ANIMAL PRODUCTS OF ST. LOUIS COUNTY.

DISTRICTS.		ANIMAL PRODUCTS.													
		NEAT CATTLE.								HORSES.				MULES.	
No.	Designation.	Oxen.	Milch Cows.			Calves	Beeves.		Stock	Work.	Brood	Stock.	Colts.	Work.	Colts.
		No.	No.	Butter lbs.	Cheese. lbs.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
—VI.	City of St. Louis	1	3,574	.....	.....	.....	.....	.....	.....	6,477	.. ...	.....	.....	1,972	.....
VII.	St. Ferdinand Township	46	1,276	43,840	.....	538	1	.....	2	1,059	418	26	251	350	30
VIII.	Central Township	34	2,459	80,283	.....	617	677	290,800	248	1.508	78	67	198	303	26
IX.	BonhommeTownship	92	1,260	45,090	2,500	546	1	800	487	1,677	10	98	158	251	41
X.	Meramec Township	91	619	24,200	.....	434	102	23,705	481	444	170	70	126	106	37
XI.	Carondelet Township	23	1,668	19,622	8	720	.....	.....	.....	1,234	79	6	195	131	23
XII.	St. Louis Township, outside of city limits	5	1,680	150	.....	151	1	.....	.....	754	.....	6	15	98	4
	Total	291	12,536	213,185	2,508	3,006	782	315,305	1,218	12,553	755	273	943	3,211	161

ANIMAL PRODUCTS OF ST. LOUIS COUNTY—CONTINUED.

DISTRICTS.		ANIMAL PRODUCTS.														
		SWINE.				SHEEP.				POULTRY.				BEES.		
No.	Designation.	Sows.	Pigs.	Fat.	Stock	Weth.	Ewes.	Lambs	Wool.	Chick's.	Tk's.	Ducks	Geese.	Hives.	Wax.	Honey
		No.	No.	No.	No.	No.	No.	No.	Lbs.	No.	No.	No.	No.	No.	No. lbs.	No. lbs.
I—VI.	City of St. Louis.....	.....	739	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
VII.	St. Ferdinand Township	1,134	1,171	4,459	3,821	212	888	851	3,568	22,166	1,298	1,716	1,872	29	.....	70
VIII.	Central Township.....	447	2,384	2,934	149	59	791	224	3,940	31,701	2,496	1,833	1,725	71	.....	325
IX.	Bonhomme Township	847	4,408	.....	4,413	293	1,318	209	6,586	18,903	1,142	941	1,616	138	.....	1,755
X.	Meramec Township	607	3,160	2,119	2,096	347	834	484	3,865	12,691	549	754	962	133	57	389
XI.	Carondelet Township.....	834	2,804	1,556	10	95	520	144	929	18,788	1,179	728	1,222	89	6	317
XII.	St Louis Tp. outside of city limits..	306	332	111	2	3	98	52	.....	9,080	180	353	582	18	2	8
	Total.....	4,175	14,998	11,179	10,491	1,009	4,459	1,964	18,888	113,329	6,844	6,325	7,979	478	65	2,864

ANIMAL PRODUCTS OF ST. LOUIS COUNTY—CONTINUED.

DISTRICTS.		NATURAL PRODUCTS.		MINES.									
		FOREST.										EMPLOYES.	
No.	Designation.	Lumber.	Wood.	COAL.		STONE.		CLAY.		LIME.			
		Feet.	Cords.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	No. of	Ag. w. pr. day.
I—VI.	City of St. Louis	.....	.....	.....	.....	101,113	$114,800	.....	.....	232,000	75,510	117	$2 50
VII.	St. Ferdinand Township	.....	7,127	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
VIII.	Central Township	100	2,392	38,362	$78,124	3,000	3,600	4,500	11,000	.....	.....	117	$2 00
IX.	Bonhomme Township	50,000	7,639	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
X.	Meramec Township	30,600	3,316	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
XI.	Carondelet Township	.....	.....	.....	.....	32,000	125,500	.....	.....	25,000	6,750	45	$2 50
XII.	St. Louis Tp. outside of city limits	.....	.....	18,006	45,000	20,640	18,500	2,000	6,000	.....	.....	93	$2 62
	Total	80,700	20,474	56,362	$123,124	156,753	$249,400	6,500	17,000	257,000	82,260	372	.....

DIVISION OF LAND.

No.	DISTRICTS. Designation.	LAND. IMPROVED. Grains, Grasses, Legume roots, etc	Pastures	Total.	UNIMPROVED. Forest	Unbroken prairie, Building lots, etc.	Total.	ROADS, RIVERS AND LAKES.	AREA.		FENCES. Rail.	Board.	Hedge.	Total.
		Acres.	Acres.	Acres.	Acres	Acres	Acres.	Acres	Acres.	Miles.	Rods.	Rods.	Rods.	Rods.
I-VI.	City of St. Louis					6,974	6,974	3,266	10.240	16				
VII.	St Ferdinand Township	29,118	6,551	35,669	18,964	16,279	35,243	6,528	77,440	121	227,987	99,608		327,595
VII.	Central Township	26,595	2,126	28,721	17,774	5,921	23,695	5,824	58,240	91	132,930	87,565	14,565	235,060
IX.	Bonhomme Township	18,037	5,359	23,396	148,77	28,351	43,228	9,536	76,160	119	244,570	5,000	100	229,670
X.	Meramec Township	11,320	2,167	13,487	25,374	23,859	49,233	44,80	67,200	105	111,989	2,631		114,620
XI.	Carondelet Township	16,069	348	16,417	11,000	14,683	25,683	5,260	47,360	74	113,700	83,967	11,047	208,714
XII.	St. Louis outside of city limits	3,483	3,328	6,811	1,053	2,245	32,98	1,731	11,840	18.5	4,871	37,560	103	42,534
	Total	104,622	19,879	124,501	89,042	98,312	187,354	36,625	348,480	544.5	836,047	316,331	25,815	1,158,193

AGRICULTURAL PRODUCTS OF ST. LOUIS COUNTY.

No.	Designation.	AGRICULTURAL PRODUCTS.							
		LAND.				GRASSES.			
		Improved Total.	Unimproved Total.	Forest.	Unbroken Prairie.	Pasture.	Meadow.		
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Tons of Hay.	Bushels Seed.
VII	St. Ferdinand Township	35,668¾	35,243	18,964	16,279	7,685¾	11,207	14,234	.....
VIII	Central Township	28,721½	23,695	17,774	5,921	4,721 7-16	11,474½	10,338½	.....
IX	Bonhomme Township	23,395½	43,228	14,877	28,351	6,300¾	2,980	2,312	.....
X	Meramec Township	13,487⅞	49,233	25,374	23,859	3,022⅞	1,354⅛	879¾	7
XI	Carondelet Township	16,416	25,683	11,000	14,683	2,057¾	5,697	4,911	.....
XII	St. Louis, outside of city limits.	6,810 13-24	3,298	1,053	2,245	3,652 9-16	873½	1,400½	.....
	Total.	124,499 11-12	180,380	89,042	91,338	27,441½	33,586½	34,075¾	7

No.	Designation.	AGRICULTURAL PRODUCTS.															
		GRAINS.														LEGUMES.	
		Corn.		Fall Wheat.		Oats.		Rye.		Barley.		Buckwheat.		Hun. Grass Millet.		Peas.	
		Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bush.	Acres.	Tons.	Acres.	Bushels.
VII	St. Ferdinand Township	9,137	296,215	3634	51,479	2,029	44,395	15	200	....	.....	.....	.....	451	1089	1	35
VIII	Central Township	6,429	136,260	961½	13,066	2,779½	32,165	76½	147	216	2803	6	29	294	263½	3⅞	380½
IX	Bonhomme Township	6,873	199,829	3225	37,520	3,030½	63,011	27	297	216	2982	.....	.....	31	21	....	.....
X	Meramec Township	4,915	127,629	1981	28,793	1,457½	24,321	67	668	236	5097	7	89	36½	31⅝	....	.....
XI	Carondelet Township	3,115¾	66,303	1283½	18,747	2,129	54,019	56½	1074	220	5256	1	25	23½	30	32	1973
XII	St. Louis, outside of city limits	1,572¾	51,021	.....	.....	350½	12,955	¾	18	....	.....	.....	.....	....	.....	19⅞	1348
	Total	2,303 5-12	877,257	11,085	149,605	11,775¾	230,866	242½	2404	888	16,138	14	143	836½	1435⅛	56¾	3736½

No.	DISTRICTS. Designation.	AGRICULTURAL PRODUCTS. LEGUMES. Beans. Acres.	Beans. Bushels.	Castor Beans. Acres.	Castor Beans. Bush.	ROOTS, ETC. Irish Potatoes. Acres.	Irish Potatoes. Bushels.	Sweet Potatoes. Acres.	Sweet Potatoes. Bushels.	Turnips. Acres.	Turnips. Bushels.	Beets. Acres.	Beets. Bushels.
VII	St. Ferdinand Township.....	.....	....	.....	.....	1328½	72,705	2¼	180	37½	1,845	.....	....
VIII	Central Township.....	6½	239	38	500	1508	69,494	31⅛	1,860	27 1-16	3,070	¾	524½
IX	Bonhomme Township.....	.....	....	.....	.....	675	37,722	45¼	1,142	2	635	.....	25
X	Meramec Township.....	.....	....	½	5	226⅞	22,460	4⅜	317	11⅛	996	.....	....
XI	Carondelet Township.....	29½	1748	.....	.....	1248	80,992	268¾	17,783	72¼	6,657	30	1731
XII	St. Louis, outside of city limits.....	24½	1101	.....	.....	121	6,075	48⅞	2,765	14¼	745	23⅝	1769
	Total.....	60¾	3088	38½	505	5107⅝	289,448	401⅛	24,047	164 15-16	13,948	54⅜	4049½

AGRICULTURAL PRODUCTS OF ST. LOUIS COUNTY—CONTINUED.

No.	DISTRICTS. Designation.	AGRICULTURAL PRODUCTS.												
		ROOTS, ETC.						TEXTILE PLANTS.						
		Carrots.		Cabbage.		Onions.		Flax.			Hemp.		Cotton.	
		Acres.	Bushels.	Acres.	Heads.	Acres.	Bushels.	Acres.	Bush Seed.	Lbs. Lint.	Acres.	Lbs. Fibre.	Acres.	Lbs. un. of d.
VII	St. Ferdinand Township	....	....	82½	118,975	....	....	....	....	....	47	31,900	....	....
VIII	Central Township	¾	427	44	177,517	1 3-16	....	10	50	....	9	5,000	....	....
IX	Bonhomme Township	....	10	5	41,750	....	279½	....	....	....	....	....	....	....
X	Meramec Township	....	....	⅛	300	....	....	¼	2	100	3	700	⅛	10
XI	Carondelet Township	27¾	1,625	73¼	172,643	3¼	287	....	....	....	....	....	....	....
XII	St. Louis, outside of city limits	22⅛	1,994	73⅜	201,993	11 13-16	728	....	....	....	....	....	....	....
	Total.	50⅜	4,056	278½	713,183	16¼	1,312½	10¼	52	100	59	37,600	⅛	10

No.	DISTRICTS. Designations.	AGRICULTURAL PRODUCTS.											
		NARCOTIC PLANTS.		GROUND PLANTS.				SUGAR PLANTS, ETC.					
		Tobacco.		Pumpkins.		Melons.		Sorghum.		Maple.		Broom Corn.	
		Acres.	Pounds.	Acres.	Lbs.	Acres.	100 Mel's.	Acres.	Gals Sirup	No. Trees.	Lbs Sugar.	Acres.	Lbs Brush.
VII	St. Ferdinand Township	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
VIII	Central Township	10½	1,600	½	2,100	⅛	400	25	30	.....	.....	.....	.....
IX	Bonhomme Township	1	1,500	.....	.....	.....	.....	14	817	.....	.....	.....	.....
X	Meramec Township	103	81,460	11½	97,000	.....	.....	39	3,173	8	20	8	4,000
XI	Carondelet Township	.....	.....	.....	.....	.....	.....	35⅓	1,380	.....	.....	.....	.....
XII	St. Louis, outside of city limits	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total	114½	84,560	12½	99,100	⅛	400	11 5 6	5,420	8	20	8	4,000

AGRICULTURAL PRODUCTS OF ST. LOUIS COUNTY—CONTINUED.

No.	Designation.	HORTICULTURAL PRODUCTS. SMALL FRUITS, ETC.																	
		Strawberries.			Blackberries.			Raspberries.			Gooseberries.			Currants		Tomatoes.		Asparagus.	
		Acres.	Plants.	Bushels.	Acres.	Bushes.	Bushels.	Acres.	Bushes.	Bushels.	Acres.	Bushes.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	lbs.
VII	St. Ferdinand Township	*6	612	106	....	.....	.....	....	.....	.....	....	....	....	....	....	.....	....	.....	....
VIII	Central Township	44½	425	771	11½	650	178	9½	990	168	....	500	10	½	....	3	....	1⅛	....
IX	Bonhomme Township	2	2,000	125	....	.....	.....	....	1,000	10	....	....	....	....	....	.....	....	.....	....
X	Meramec Township	3	99,790	151½	....	6,450	164	....	30	½	....	....	....	....	....	.....	....	.....	....
XI	Carondelet Township	11½	.....	712	2	.....	.....	....	250	2	....	....	....	....	....	.....	....	.....	....
XII	St. Louis, outside of city limits	.....	.....	.....	....	.....	.....	....	.....	.....	....	....	....	....	....	.....	....	.....	....
	Total	67	102,827	1,865½	13½	7,100	342	9½	2,270	180½	....	500	10	½	....	3	....	1⅛	....

* Quantity of strawberries planted given by acres and plants.

No.	DISTRICTS.	HORTICULTURAL PRODUCTS.													
		APPLES.			PEARS.		PEACHES.		CHERRIES.		PRUNES.		GRAPES.		
	Designation.	Trees.	Fruit.	Cider.	Trees.	Fruit.	Trees.	Fruit.	Trees.	Fruit.	Trees.	Fruit.	Vines.	Fruit.	Wine.
		No.	Bushels.	Gallons.	No.	Bushels.	No.	Bushels.	No.	Bushels.	No.	Bushels	No.	Pounds.	Gallons.
VII	St. Ferdinand Township.....	66,519	32,381	8,150	4,325	1,274	16,120	19	881	587	....	....	9,339	5,570	.....
VIII	Central Township.....	111,750	33,257	13,693	18,426	522	35,317	128	3,280	220½	....	....	80,698	34,120	1,560
IX	Bonhomme Township.....	61,258	7,421	1,910	11,580	277	20,166	2	1,290	....	12	....	17,115	4,550	199
X	Meramec Township.....	26,587	7,566	3,940	3,336	69	19,092	2,600	.....	....	....	....	6,847	8,744	145
XI	Carondelet Township.....	63,470	14,491	6,521	5,236	739	35,477	499	.....	....	....	...	18,010	3,255	242
XII	St. Louis, outside of city limits....	11,882	8,773	1,166	2,529	542	6,220	670	10	....	....	....	25,524	23,933	2,027
	Total	351,421	103,889	35,280	45,432	3,423	132,392	3,918	5,461	807½	12	....	157,533	80,172	4,173

BIRTHS, MARRIAGES AND DEATHS.

No.	DISTRICTS. Designation.	BIRTHS. White. Male.	White. F'm'le	Colored. Male.	Colored. F'm'le	MARRIAGES. White	MARRIAGES. Col'rd	DEATHS. WHITE. Condition. Single	Mar'd	Wid'd
I	City of St. Louis—2d and 3d Rep. Dist....	270	351	3	2	42	..	324	170	26
II	City of St. Louis—4th and 5th Rep. Dist..	245	211	2	1	27	3	319	224	41
III	City of St. Louis—6th and 7th Rep. Dist..	131	126	18	14	38	7	126	92	9
IV	City of St Louis—8th and 9th Rep. Dist..	452	410	27	20	159	32	641	394	59
V	City of St. Louis—10th and 11th Rep. Dist.	177	159	3	1	32	..	264	155	9
VI	City of St Louis—12th and 13th Rep. Dist.	220	139	14	6	54	1	147	131	14
	Corrections—see notes.....	.....	....	..	..	*1343	28	†3115	1104	176
	City of St. Louis.....	1495	1396	67	44	1695	71	3936	2270	334
VII	St. Ferdinand township.....	63	57	6	5	20	..	30	22	4
VIII	Central township.....	109	90	4	1	68	..	63	75	2
IX	Bonhomme township.....	59	62	3	3	48	1	51	20	3
X	Meramec township.....	32	30	3	3	25	1	17	12	3
XI	Carondelet township.....	217	182	4	1	43	1	169	11	11
XII	St. Louis—outside of city limits.....	149	137	5	3	41	5	135	54	12
	Township—outside of city limits.....	629	558	25	16	245	8	464	194	35
	Total of county.....	‡2124	1954	92	60	1940	79	4400	2464	369

*Corrected from the record of marriages.
†Corrected from the register of deaths kept in the office of the Board of Health.
‡Number of births unreliable.

BIRTHS, MARRIAGES AND DEATHS—*Continued.*

DEATHS—CONTINUED.

WHITE—CONTINUED.											COLORED.										
Age.											Condition			Age.								
1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	Total.	Sinlge	Mar'd	Wid'd	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	Total.
172	64	37	59	82	46	24	26	9	1	520	1	1	..	1	..	..	..	1	..	..	..	..	..	2
206	48	38	67	74	61	39	33	16	2	584	5	4	1	1	..	1	3	2	1	..	1	1	..	10
29	20	29	18	33	41	27	9	8	3	227	11	13	..	1	3	6	2	2	3	6	1	..	..	24
356	79	77	171	167	113	75	34	14	8	1094	117	86	5	42	16	27	33	38	30	12	8	1	1	208
165	39	36	47	65	40	17	11	7	1	428	3	2	1	3	..	..	1	1	2	1	..	..	..	8
87	30	19	19	50	56	19	8	4	..	292	8	7	..	6	1	1	2	3	2	..	..	..	..	15
1829	88	168	472	387	140	135	60	71	45	3395	82	105	2	39	21	29	26	34	21	9	6	1	1	187
2844	368	404	863	858	497	336	181	129	60	6540	227	218	9	93	41	64	67	81	59	28	16	3	2	454
23	4	3	2	2	7	6	6	1	2	56	3	...	..	...	..	..	..	1	2	..	..	..	..	3
47	9	6	9	26	12	12	10	8	1	140	...	...	1	...	..	..	..	..	1	1	..	..	..	1
32	6	5	5	3	7	6	4	6	..	74	3	3	..	...	1	2	1	1	1	..	..	..	..	6
11	....	3	3	1	6	3	2	3	..	31	3	...	..	3	..	..	..	..	..	..	..	..	..	3
110	15	9	10	17	6	14	7	...	2	190	2	...	4	2	..	..	1	2	1	..	..	..	..	6
94	19	15	11	17	19	11	7	5	3	201	6	1	..	3	..	1	2	..	..	1	..	..	..	7
317	53	41	40	66	57	52	36	23	8	693	17	4	5	8	1	3	4	4	5	1	..	..	..	26
3161	421	445	903	924	554	388	217	152	68	*7233	244	222	14	101	42	67	71	85	34	29	16	3	2	480

*Ten persons died over 90 years of age; two over 100 years of age, one of which, a colored man, reached the age of 110 years.

BIRTHS, MARRIAGES AND DEATHS—*Continued.*

No.	Designation.	DEATHS BY CHOLERA. WHITE. Condition. Single	Mar'd	Wid'd	Age. 1-5	5-10	10-20	20-30	30-40
I	City of St. Louis—2d and 3d Rep. Dist....	129	102	10	53	26	25	38	54
II	City of St. Louis—4th and 5th Rep. Dist..	147	167	20	61	39	30	51	55
III	City of St. Louis—6th and 7th Rep. Dist...	98	53	3	6	20	23	26	27
IV	City of St. Louis—8th and 9th Rep. Dist...	292	266	30	87	52	63	107	123
V	City of St. Louis—10th and 11th Rep. Dist.	128	105	5	56	27	23	38	45
VI	City of St. Louis—12th and 13th Rep. Dist.	57	79	8	21	17	13	10	32
	Corrections—see notes....	*213	201	23	40	24	61	177	80
	City of St. Louis....	1064	968	99	324	205	238	447	416
VII	St. Ferdinand township....	....	3	1	....	....	....	....	....
VIII	Central township....	2	3	....	2	....	....	....	2
IX	Bonhomme township....	....	1	....	....	....	....	....	....
X	Meramec township....	....	....	....	....	....	....	....	....
XI	Carondelet township....	....	1	....	....	....	....	....	1
XII	St. Louis—outside of city limits....	19	16	....	7	3	2	8	6
	Township—outside of city limits....	21	24	1	9	3	2	8	9
	Total of county....	1085	992	100	333	208	240	455	425

*Died in hospitals, on steamboats, or died here, being residents of other States.

BIRTHS, MARRIAGES AND DEATHS—*Continued.*

DEATHS BY CHOLERA—CONTINUED.

WHITE—CONTINUED.						COLORED.												
Age.						Condition.			Age.									
40-50	50-60	60-70	70-80	80-90	Total.	Single	Mar'd	Wid'd	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	Total.
21	8	12	4	....	241	....	....	....	....	....	....	....	....	....	....	....	..	..	....
43	20	20	10	....	329	2	4	....	....	....	1	1	2	1	....	1	..	..	6
30	17	5	....	....	154	11	10	....	1	3	6	1	2	3	5	....	..	..	21
82	45	20	6	3	588	73	71	3	13	5	27	25	37	29	4	6	1	..	147
29	9	9	2	....	238	1	2	....	....	....	1	..	1	1	....	....	..	..	3
37	7	5	2	....	144	4	6	....	....	....	3	1	....	1	2	3	..	..	10
32	12	9	2	....	437	27	32	1	2	1	20	19	11	5	1	1	..	..	60
274	118	80	26	3	2131	118	125	4	16	9	58	47	53	40	12	11	1	..	247
1	....	3	....	....	4	2	....	....	....	....	....	....	....	2	....	....	..	..	2
....	....	1	....	....	5	....	1	....	....	....	....	....	....	1	....	....	..	..	1
1	....	....	....	....	1	3	2	....	....	1	2	1	....	1	....	....	..	..	5
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	....
....	....	....	....	....	1	1	....	....	....	....	....	1	....	....	....	....	..	..	1
5	3	1	....	....	35	....	1	....	....	....	....	1	....	....	....	....	..	..	1
7	3	5	....	....	46	6	4	....	....	1	2	3	....	4	....	....	..	..	10
281	121	85	26	3	2177	124	129	4	16	10	60	50	53	44	12	11	1	..	267

MORTALITY BY SEXES.

White male	3984
White female	3249
Total	7233
Black male	315
Black female	165
Total	480
Total male	4299
Total female	3414
Total	7713

VITAL AND CHOLERA STATISTICS OF THE FOURTH, EIGHTH AND NINTH REPRESENTATIVE DISTRICTS, ACCORDING TO SEXES, AGE, CONDITION AND RACE.

	CONDITION.						AGE.																			
	Single.		Married.		Widowed		1-5		5-10		10-20		20-30		30-40		40-50		50-60		60-70		70-80		80-90		Total.	Total.	Total male and female.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
Died, white	354	287	208	186	17	42	180	176	40	39	34	43	87	84	87	76	78	35	47	28	16	18	8	6	2	6	579	515	1094
Died, colored	66	51	49	37	2	3	19	23	9	7	12	15	20	13	21	17	23	7	8	4	4	4	1	1	1	..	117	91	208
Total white and colored	420	338	257	223	19	45	199	199	49	46	46	58	107	97	108	93	101	42	55	32	20	22	9	7	3	6	696	606	1302
Died of cholera, white	170	122	131	135	6	24	52	35	26	26	24	39	55	52	62	61	51	31	24	21	9	11	4	4	2	3	307	281	588
Died of cholera, colored	40	33	43	28	1	2	5	8	2	3	12	15	15	10	21	15	23	6	1	3	4	2	..	1	..	..	84	63	147
Total white and colored	210	155	174	163	7	26	57	43	28	29	36	54	70	62	83	76	74	37	25	24	13	13	4	5	2	3	391	344	735
Died, white	354	287	208	186	17	42	180	176	40	39	34	43	87	84	87	76	78	35	47	28	16	18	8	6	2	6	579	515	1094
Died of cholera	170	122	131	135	6	24	52	35	26	26	24	39	55	52	62	61	51	31	24	21	9	11	4	2	..	3	307	281	588
Died of other diseases	184	165	177	51	12	18	128	141	14	13	10	4	32	32	25	15	17	4	23	7	7	7	4	4	2	3	.....	.....	.....
Died, colored	66	51	49	37	2	3	29	23	9	7	12	15	20	13	21	17	23	7	8	4	4	4	1	1	1	..	117	91	208
Died of cholera	40	33	43	28	1	2	5	8	2	3	12	15	15	10	21	15	23	6	1	3	4	2	..	1	..	..	84	63	147
Died of other diseases	26	18	6	9	1	1	14	15	7	4	..	..	5	3	....	2	....	1	7	1	..	2	1	..	1	..	33	28	61
Died, white and colored	420	338	257	223	19	45	199	199	49	46	46	58	107	97	108	93	101	42	55	32	20	22	9	7	3	6	696	606	1302
Died of cholera	210	155	174	163	7	26	57	43	28	29	36	54	70	62	73	76	74	37	25	24	13	13	4	5	2	3	391	344	735
Died of other diseases	210	183	83	60	12	19	142	156	21	17	10	4	37	35	25	17	27	5	30	8	7	9	5	2	1	3	305	262	567

CHOLERA STATISTICS FROM THE 1ST DAY OF JANUARY UNTIL THE 31ST DAY OF DECEMBER, 1866.

No.	DISTRICTS. DESIGNATION.	SEXES. White. Male.	White. Female.	Col'd. Male.	Col'd. Female.	Total. Male.	Total. Female.	AGES. White. 1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	Total.	Colored. 1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	Total.	Total white and colored.
I	City of St. Louis—2d and 3d Rep. District	....	....	...	...	....	....	79	28	47	64	73	28	14	15	5	..	353	..	..	..	..	..	..	..	..	..	....	353
II	City of St. Louis—4th and 5th Rep. District	....	....	...	...	....	....	111	46	55	70	86	76	28	36	11	1	520	1	1	..	2	3	1	..	1	..	9	529
III	City of St. Louis—6th and 7th Rep. District	....	....	...	...	....	....	47	39	35	81	61	70	39	11	2	..	385	3	3	5	9	3	3	6	1	1	34	419
IV	City of St. Louis—8th and 9th Rep. District	....	....	...	...	....	....	142	73	82	171	153	116	63	32	11	5	848	18	5	27	31	43	28	8	9	2	171	1019
V	City of St. Louis—10th and 11th Rep. District	....	....	...	...	....	....	164	67	56	99	84	53	24	30	5	..	582	1	..	..	5	4	2	1	1	..	14	596
VI	City of St. Louis—12th and 13th Rep. District	....	....	...	...	....	....	49	24	16	27	52	43	13	7	2	..	233	3	..	..	4	3	4	..	..	..	14	247
	Total six Districts	1721	1200	139	103	1860	1303	...	..	...	...	...	...	...	...	..	..	....	..	..	..	..	..	..	..	..	..	....	....
	Died in hospitals, steamboats, etc	403	144	37	13	440	157	42	24	88	213	107	46	15	9	3	..	547	2	1	11	19	10	5	1	1	..	50	597
	Total city of St. Louis	2124	1311	176	116	2200	1469	634	301	379	725	616	439	196	140	39	6	3468	28	10	43	70	66	43	16	13	3	292	3760
	Township outside of city limits	25	21	7	3	32	24	9	3	2	8	9	7	3	5	..	..	46	..	1	2	3	..	4	..	..	..	10	56
	Total county	2149	1365	183	119	2332	1484	643	304	381	733	625	439	199	145	39	6	3514	28	11	45	73	66	47	16	13	3	302	3816

REMARKS.—Died of cholera infantum, 465; died of cholera morbus, 334; died of cholera epidemic, 3017. Total, 3816.

SYNOPSIS OF THE STATISTICS OF ST. LOUIS COUNTY.

The county of St. Louis embraces an area of 544½ square miles; 16 square miles lie within the city limits, and 528½ form the farming districts.

In the city, 6,974 acres are laid out in building lots, and 3,266 acres are used for public streets, etc. Of the area assigned to the farming districts, or the country, containing 338,240 acres, 33,359 acres must be deducted for public roads, lakes, rivers, etc.; the balance, 304,381 acres (town and city lots excepted), are owned by 3,916 persons. The largest tracts owned by one person are found in Meramec township, the smallest in St. Louis township (outside of the city limits).

The larger portion of the land in private possession is not yet improved. Improved, 124,501 acres; unimproved, 180,380 acres, including building lots. Of the unimproved, 89,042 acres are covered with forest. Unbroken prairie is not reported in Bonhomme townships, but forms the greater part of the unimproved land in St. Louis township. The largest forests we find in Meramec township; the largest tracts of unimproved land in Bonhomme township.

Of the unimproved land, 96,607 acres are devoted to agricultural purposes, 7,747 acres are planted with fruit trees, 174 acres are used for vineyards, 94⅛ acres are under cultivation in small fruits and vegetable products not enumerated, and 19,879 acres are kept in pasture.

Fences.—The improved lands are surrounded by 1,178,193 rods of fencing—that is: 336,047 of rail, 316,331 rods of board, and 25,815 rods of hedge fences. The greater part of the land in St. Ferdinand township is fenced with rails; in St. Louis township with boards. Central and Carondelet have the most hedges. A few rods of hedge are planted in St. Ferdinand and Meramec townships.

Buildings.—To avoid repetition it may be remarked that all kinds of buildings, as dwellings, barns, stables, mills, factories, churches, schools, etc., are called houses. The expression "value" is used in reference to the assessed value, and in no instance has the cost value been stated. Under the head of new structures, only such buildings are counted as have been built and finished within the last year, previous to the first day of September. All additions, repairs, improvements or alterations of old buildings are considered in the valuation of improvements made before the first day of September, 1865. Brick houses mean not only those built of brick, but also those of stone. Frame houses, as far as the city of St. Louis is concerned, include the log houses; as the few of these (only five or six), which are not yet removed, render a seperate division superfluous.

St. Louis.—On the first day of September, 1866, the city contained 17,284 houses, valued at $23,790,040 Of these, 16,088 were erected previous to the first of September, 1865, valued at $22,206,100. From that date to the first of September, 1866, there were built 1,196 houses, valued at $1,583,940; of these, 1,165 were dwellings, valued at $1,412,840; twenty mills and factories, valued at $77,100; eleven school houses and churches, valued at $94,000. Mills and factories comprehend: three breweries, one cement mill, one flour mill, one fruit house, one mill for sawing marble, one match factory, one plow factory, two rope factories, one sash and flooring mill, two saw mills, two blacksmith shops, one soap factory, one stoneware factory, one tannery, one tobacco factory, four churches, one convent and two theatres.

Of all houses erected previous to September 1, 1866, 14,312 were brick buildings, valued at $23,005,695 and 2,792 frame buildings, valued at $784,345; of these, 13,381 brick buildings, valued at $21,497,205, and 2,707 frame buildings, valued at $708,895, were erected before the first of September, 1865, showing that 931 brick buildings, valued at $1,508,410, and 265 frame buildings, valued at $75,450, were erected during the year.

The Country.—In the country, outside of the city limits, there were on the first of September, 1866, 764 houses, valued at $2,824,278. These may be classed under improvements made before September 1, 1865, comprehending 4,240 houses, valued at $2,255,825, 2876 barns and stables, $318,573.

NEW STRUCTURES MADE DURING THE YEAR ENDING SEPTEMBER 1.

Class.	No.	Value.	
Dwellings	328	Valued at	$ 167,960
Barns and stables	173	Valued at	37,770
Mills and factories	4	Valued at	5,750
Schools and churches	19	Valued at	38,800

More specifically: one brewery, one fire-proof brick factory, one flouring mill, one sash factory, five churches, thirteen school-houses, and one academy.

The total number of buildings on the first day of September, 1866, consisted of 1,147 brick houses, valued at $1,441,753; 3,985 frame houses, valued at $1,102,225, and 2,508 log houses, valued at $280,300. These may be classed under

OLD IMPROVEMENTS.

Class.	No.	Value.	
Brick houses	1062	Valued at	$1,322,258
Frame houses	3619	Valued at	980,980
Log houses	2435	Valued at	271,160
Total	7116		$2,574,398

NEW STRUCTURES.

Class.	No.	Value.	
Brick houses	85	Valued at	$119,495
Frame houses	366	Valued at	121,245
Log houses	73	Valued at	9,140
Total	524		$249,880

CITY OF CARONDELET.—The building statistics of this city are comprehended in those given to the country, but they may be considered of sufficient importance to be given separately. The total number of houses on the first of September, 1866, was 964, valued at $656,300, viz:

OLD IMPROVEMENTS.

Class.	No.	Value.	
Houses	763	Valued at	$583,310
Barns and stables	6	Valued at	775

NEW STRUCTURES.

Class.	No.	Value.	
Houses	119	Valued at	$50,545
Barns and stables	69	Valued at	8,820
Mills and factories	2	Valued at	1,250
Schools and churches	5	Valued at	11,600
Total	964		$656,300

CLASSIFIED ACCORDING TO MATERIAL.

Class.	No.	Value.	
Brick buildings	310	Valued at	$479,040
Frame buildings	625	Valued at	174,835
Log buildings	29	Valued at	2,425
Total	964		$656,300

OLD IMPROVEMENTS.

Class.	No.	Value.	
Brick buildings	287	Valued at	$450,125
Frame buildings	456	Valued at	131,760
Log buildings	26	Valued at	2,200
Total	767		$584,085

NEW STRUCTURES.

Class.	No.	Value.	
Brick buildings	23	Valued at	$28,915
Frame buildings	169	Valued at	43,075
Log buildings	3	Valued at	225
Total	195		$72,315
Grand total	964		$656,300

COUNTRY STATISTICS.

AGRICULTURE.

One hundred and twenty-four thousand five hundred and one acres are under cultivation: about 96,607 acres for ordinary farming purposes, 7,747 acres are used for orchards, 175 acres planted in grapes, 94⅜ acres small fruits; the remainder, about 19,879 acres, for pasturage.

AGRICULTURAL PRODUCTS.

HAY.—33,586 acres of meadow yielded, the last year, 340,095¾ tons of hay. The best farmers in St. Ferdinand township raised 2 1-7 tons per acre. The average for the county is about one ton per acre.

CORN.—The average crop among the best farmers is from 50 to 60 bushels; average for the whole county, twenty-five to thirty bushels per acre. Total number of acres under cultivation, 32,042 5-12 acres; total yield, 877,257 bushels. Corn is cultivated to the largest extent in Bonhomme township, where the average yield is thirty-three bushels per acre.

WHEAT.—The wheat crop in this county last year cannot be accounted an average one. Among the best farmers it sometimes reached twenty-five bushels per acre; general average thirteen bushels. The total number of acres cultivated was 11,085; total crop, 149,605, of which St. Ferdinand township produced 51,479 bushels on 3,634 acres. No wheat is reported in St. Louis township. Spring wheat is seldom sown.

OATS.—In some parts of the county the farmers dispose of a large proportion of their oats, unthrashed, in the city market, where, in the spring season, they find a ready sale; others feed them out in the sheaf. On this account the aggregate crop can only be estimated. As reported, 11,775¾ acres yielded 230,866 bushels, which, according to the general average in other parts of the county (thirty bushels to the acre), should be 350,000. In Carondelet township the best farmers have raised sixty bushels per acre.

RYE—Is not much cultivated; 242½ acres were reported, yielding a crop of 2,404 bushels, or ten bushels per acre.

BARLEY.—Not reported in St. Ferdinand township. In St. Louis township, 888 acres under cultivation, gave 16,133 bushels, or twenty bushels per acre.

BUCKWHEAT—Is cultivated only in Central, Meramec and Carondelet townships. Average crop ten bushels. In Central, only five bushels. Total last year's crop 143 bushels.

HUNGARIAN GRASS AND MILLET.—Not much cultivated, except in St. Ferdinand township, where the best farmers raise two and a half tons per acre; general average one and three-fourths tons per acre, 836¼ acres yielded 1,438½ tons.

PEAS AND BEANS—Are raised only in those parts of the county where the farmers have an opportunity to sell the crops in the daily market. Of peas fifty-six and three-fourths acres, yielding 3,736 bushels, and beans sixty and three-fourths acres, yielding 3,088 bushels, were reported. The average among the best gardeners was 320 bushels (green) peas, and from 160 to 180 bushels (green) beans per acre. Among the farmers the average is sixty-six bushels peas and fifty-one beans.

IRISH POTATOES.—5,107⅜ acres produced 289,448 bushels, or an average of fifty-six and a half bushels per acre. The largest crop among the best farmers is 250 bushels per acre.

SWEET POTATOES.—Cultivated mostly for home consumption; average crop sixty bushels per acre. The largest crop, raised in Meramec township, amounted to 200 bushels per acre. Total in the county, 401⅛ acres producing, 24,147 bushels.

BEETS, CARROTS, CABBAGES, ONIONS, TURNIPS—Are mostly cultivated in gardens adjoining the city. Some farmers in Central township raised 400 bushels of beets; 240 do. onions; 560 do. carrots, per acre. In St. Louis township 16,000 heads of cabbages per acre.

Reported in the county, 164 15.16 acres, yielding 13,964 bushels turnips.

54⅜	"	"	4,049	" beets.
50⅛	"	"	4,056	" carrots.
278½	"	"	713,183	" heads cabbage.
161	"	"	1,212	" bushels onions.

FLAX, HEMP AND COTTON.—Some attempts have been made to raise these staples, but not with very encouraging success. Cotton planted on one-eighth of an acre in Meramec township yielded ten pounds. Flax sown on ten and one-fourth acres yielded 52 pounds of seed and 100 pounds of lint. The lint was all obtained from the one-quarter acre. The owner of the ten acres, not knowing how to prepare the lint, was satisfied with fifty pounds of seed, and used the stalk for minor purposes.

HEMP was cultivated in Meramec, St. Ferdinand and Central townships to the amount of fifty-nine acres, yielding 376,000 pounds of lint. The crop in St Ferdinand township amounted to 700 pounds; in Central, 556; in Meramec, 233 pounds of seed per acre. The average crop in the county is 638 pounds per acre.

HOPS.—Cultivated only for home consumption; none reported.

TOBACCO.—The experiment of raising tobacco in Meramec township has been followed by the other townships with good success. One farmer in Bonhomme raised 1500 pounds per acre. In Central some farmers raised 1600 pounds per acre. In Meramec township 103 acres yielded 81,460 pounds, an average of 790 pounds per acre.

PUMPKINS.—Twelve and one-fourth acres yielded 99,100; 15,000 pounds were raised on one acre in Meramec township.

MELONS are doubtless raised in much larger quantities than reported; 400 were reported in Central township.

SORGHUM.—The success of the farmers of Meramec township in cultivating this crop has stimulated their neighbors to try the cultivation also. The farmers in Bonhomme and Carondelet had a fair crop, but in Central it was a failure. Total number of acres cultivated, outside of St. Louis township, 113 5-6, from the produce of which 5,420 gallons of sirup were made. No sugar has, as yet, been made. The average produce of the different townships varies much. The farmers in Meramec made 222 gallons per acre, while the best farmers in Bonhomme did not make more than sixty gallons per acre. The general average in the county is forty-seven gallons per acre.

MAPLE SUGAR.—In Meramec twenty pounds were made from eight trees. No sirup reported.

BROOM CORN.—Eight acres cultivated in Meramec yielded 4000 pounds of brush.

HORTICULTURAL PRODUCTS.

In the county of St Louis 7,747 acres are planted with fruit trees. Of these 5,093 acres contain 351,421 apple trees; 658 acres are in pears; 1,917 acres contain 132,392 peach trees, and 79 acres 5,461 cherry trees and 12 plum trees. Last year's fruit crop could not be called an average one, being destroyed by late frost. In St. Ferdinand township some farmers raised from two to five bushels of apples per tree, but in all other townships the average was not more than one and a half bushels per tree.

VINEYARDS.—Formerly but few grapes were raised in this county, but within a few years the cultivation of the vine has greatly increased. Few crops pay better when properly planted and attended to. Last year 175 acres were under cultivation in vineyards, and this year there will be a large increase. The crop this year was much injured by late frost. The old and young vineyards produced 80,172 pounds of grapes (or 558 lbs. per acre.*); 4,173 gallons of wine were reported. The greater part of the grapes was sold in the city markets. Some vine growers picked forty pounds per vine; in Carondelet twenty pounds; in Meramec ten pounds, and in Central three pounds per vine.

STRAWBERRIES.—The cultivation of this fruit is rapidly increasing. One farmer in Central raised 125 bushels on three acres and sold the fruit for $1,500.

Raspberries, gooseberries, blackberries and currants are cultivated to a great extent, but the product is not reported.

*This average includes the young vineyards, many of which are not yet in bearing.

ANIMALS.

The number of animals raised and kept in the county is much greater than that reported. The number in 1866, outside of the city limits, was 8041 horses, 1400 mules and 14,259 head of cattle. In the city proper, 7621 horses, 1271 mules and 13,909 head of cattle were reported in 1865. For 1866, 6477 horses, 1972 mules and 3572 cows were returned at the assessor's office.

The number of swine in the county, according to the assessment, is 40,104; sheep, 7432.

Cows.—8963 milch cows are reported, and 213,185 pounds butter and 2508 pounds of cheese as the product of the dairy. In the vicinity of the city the farmers find it more profitable to sell the milk than to make it into butter and cheese.

Sheep.—From 5568 sheep, the lambs not counted, 18,888 pounds of wool was clipped. By proper care and attention the old average of 3½ pounds of wool per head has been raised to 8 and 11 pounds, and exceptional cases of twenty-three pounds are reported.

BEE-HIVES

To the number of 478 are returned, producing sixty-five pounds of wax and 2864 pounds of honey—on an average seven pounds per hive. Sometimes ten and sixteen pounds have been collected from one hive.

POULTRY.

Total number of chickens 113,329; turkeys, 6844; ducks, 6325; geese, 7979.

PRODUCTS OF THE FORESTS AND MINES.

At a few saw-mills in the county some lumber has been cut for home use but none for exportation. The total quantity reported is 80,700 feet. Most of the lumber for use in building comes from other States. Most of our own being oak is used for fencing. Besides umber, 20,474 cords of wood were cut.

Mines.—Although this county is rich in coal, clay, building and limestone, only a small amount has been brought into market, and much more is sold than is ever spoken of in the assessor's office. In the city only seventeen stone quarries and three lime-kilns have been reported. In the county neither the number of mines nor the number of quarries but only the products are found in the returns, viz:

Coal, 56,362 tons, valued at	$123,124
Building stone, 186,758 perches, valued at	249,460
Fire clay, 6500 tons, valued at	17,000
Lime, 257,000 bushels, valued at	84,260

SOCIAL STATISTICS.

Births.—According to the United States census for the year 1860 the corrected rate of births in Missouri was 4.35 per cent., or one annual birth for every thirty persons. If the rule for the correction of census returns (add one-eighth to the number of children who died before one year) be applied for the correction of the returns of the district assessors who only reported for last year 4226 births, the correct number of births would be 4730, or one birth among 49.72 persons, or 2.01 per cent. The correctness of this statement is very probable, for experience in this and other countries has shown that the rate of annual births decreases when an epidemic is prevailing. The difference between the number of births reported this year and last was very apparently a consequence of the prevalence of cholera. It must be considered that during the prevalence of an epidemic many fœtuses do not reach perfection, and being without vitality are not considered as births. The average rates in other countries are, according to the United States census for 1850, as follows:

TABLE III.

Showing offenses and causes for which committed.

Destitution	61
Larceny	36
Incorrigibility	30
Abandoned	27
Exposed to bad influences	18
Burglary and larceny	7
Neglected	4
Escaping from institution	2
Fighting	1
Stabbing	1
Arson	1
Total	188

TABLE IV.

Showing parentage of all admitted.

Irish	76
German	28
English	16
French	3
Scotch	2
Italian	1
Colored	22
Foreign	148
American	40
Total	188

TABLE V.

Showing ages of all when admitted.

BOYS.

One year old	
Two years old	2
Three years old	2
Four years old	8
Five years old	4
Six years old	6
Seven years old	12
Eight years old	5
Nine years old	5
Ten years old	6
Eleven years old	9
Twelve years old	17
Thirteen years old	14
Fifteen years old	13
Sixteen years old	13
Seventeen years old	3
Eighteen years old	
Nineteen years old	
Twenty years old	1
Total	141

GIRLS.

One year old	1
Two years old	1
Three years old	3
Four years old	2
Five years old	3
Six years old	1
Seven years old	7
Eight years old	5
Nine years old	
Ten years old	4
Eleven years old	1
Twelve years old	5
Thirteen years old	4
Fourteen years old	2
Fifteen years old	
Sixteen years old	1
Seventeen years old	1
Eighteen years old	3
Nineteen years old	1
Twenty years old	1
Total	47

Average age of boys, eleven years two and a half months.
Average age of girls, nine years ten and a half months.

TABLE VI

Showing nativity of all admitted.

Missouri	90
Illinois	14
Tennessee	12
New York	11
Ohio	8
Germany	6
Ireland	4
Louisiana	4
England	3
Indiana	3
Mississippi	3
Alabama	2
New Hampshire	2
Pennsylvania	2
Arkansas	2
Kentucky	2
Canada	2
Virginia, Atlantic Ocean, France, Minnesota, Wisconsin, Maryland, Vermont, Rhode Island, Indian Territory and Texas, each 1	10
Foreign countries	17
United States	163
Not known	8
Total	188

TABLE VII.

Showing length of time inmates, discharged during the year, remained in the institution.

One month or less	28	Sixteen months	5
Two months	28	Seventeen months	1
Three months	10	Eighteen month	1
Four months	11	Nineteen months	2
Five months	13	Twenty months	2
Six months	8	Twenty-one months	2
Seven months	7	Twenty-two months	1
Eight months	10	Twenty-three months	4
Nine months	3	Twenty-four months	2
Ten months	4	Twenty-six months	1
Eleven months	4	Thirty months	1
Twelve months	3	Forty-one months	1
Thirteen months	7	Forty-seven months	2
Fourteen months	3		
Fifteen months	5	Total	169

Average period of detention, seven and nine-tenths months.

Average period of detention at last report, six and a quarter months.

Average period of detention at Michigan Reform School, twenty-three months and eleven days.

Why so much less in our institution than in any other similar institution in this country or in Europe? In the Michigan Reform School, at Lansing, the average age of ninety-five boys committed during the year ending November 16, 1865, was thirteen years two months and twenty-seven days. The youngest boy was seven years old, and the whole number committed who were ten years old and under was only eleven. It appears from table VI that seventy-one children, ten years of age and under, were received into our institution during the past year. The presence of so many young and innocent children who do not need the restraining influences of the House of Refuge, and who are returned to their parents whenever such parents can give moderately satisfactory evidence that they will take care of them, furnishes one reason for the unusually brief period of detention of inmates of our institution.

TABLE VIII.

Showing how the children discharged during the year were disposed of.

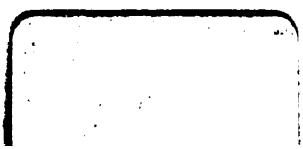
Delivered to parents	90	Discharged as unsuitable subjects	3
Furnished with country homes	11	Sent to Blind Asylum	1
Furnished with city homes in St. Louis	6	Went to visit parents and did not return	4
Delivered to the custody of friends	4	Sent to Deaf and Dumb Asylum	1
Discharged by order of Criminal Court, the Grand Jury having ignored bills	21	Discharged on writ of habeas corpus	3
Sent to City Hospital and not returned	8	Died at the institution	1
Delivered to guardians	1	Escaped and not returned	13
Transferred to Soldiers' Orphans' Home	2	Total	169

Entire amount expended for the House of Refuge during the year 1866 was $59,670 14

50	.....	8	8	1	..
..	.....	2	2	..	1
00	.....	...	1	..	1
00	100	59	62	3	

70	.....	6	5	..	
00	.....	...	...	..	..
91	.....	5	11	1	..
00	.....	1	4	..	..
50	.....	16	9	2	
20	.....	4	1	..	..
31	.....	32	30	3	

85	3,577	21	28	..	..
52	6,620	33	38	1	..
30	850	6	4	..	..
..	.....	157	112	3	
67	11,047	217	182	4	

13	3	33	33	2	2
70	.....	76	66	2	1
77	100	40	42	1	..
60	103	149	137	5	3

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